

MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL
RAILROAD AND FINANCIAL NEWSPAPER.

CONTENTS.

EDITORIAL.

Senator Camden's Railroad Work in West Virginia	5
Pig Iron Production	5
The South at the World's Fair	6
Additional Banking Capital Needed	6
An Important Deal at Sheffield, Ala.	6
To Solve the Question of Diversified Farming in Georgia	7
The Georgia-Alabama Investment & Development Co.	7
Petty Jealousy that Injures the South	7
The Bessemer Ores of Texas	8
The Much-Talked-of Pan-American Transportation Co.	8
Editorial Short Notes	5, 8, 37

INDUSTRIAL NOTES.

Trade Notes	49, 52, 69
Illustrated Descriptions of Machinery	46, 47
Iron Markets	69, 70
Eastern Lumber Markets	74

CONSTRUCTION DEPARTMENT.

Full particulars regarding all industrial enterprises organized in the South during the past week	40-42
Burned.	42
Building Notes	42
Machinery Wanted	44

FINANCIAL DEPARTMENT.

New Banks	38
Bonds, Stocks and Other Notes	38

CORRESPONDENCE AND NOTES.

President Kimball, of the Norfolk & Western, interviewed	8
English Investments in Middlesborough, Kentucky	9
Florida Phosphates	9
New Iron and Manganese Mining Operations	9
River Traffic in the Mississippi Valley	9
Iron-Making in Texas	9
The Big Deal at Sheffield, Ala.	10
Middlesborough, Ky., and the Special Meeting of the Town Co.	10
Three Things Needed at Winston-Salem, North Carolina	10
Items from Newport News, Va.	11
Buena Vista (Va.) Notes	11
Bessemer City, N. C., a New North Carolina Town	11
Want to Buy American Furniture	11
World's Fair Notes	12
Progress at Front Royal, Va.	12
Wanted—A Good Business Location or a Wife	12
Rutherfordton, N. C.	12
Improved Coke-Making Processes	13
Tin Mining in the Straits Settlements	13
A Prosperous South Carolina Town	13
Refrigeration—The Science of the Day. II.	37
The El Dorado of West Virginia	43
Greensboro, N. C.	44
Many New Improvements at Bristol, Tenn.	44
A Town With a Future	55
Contracts for Another Tinplate Factory	55
Gold Mining in North Carolina	75
Litho-Carbon—A Texas Discovery	75

RAILROAD DEPARTMENT.

Railroad Construction	37
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Classified Index of Advertisers.

[FOR "ALPHABETICAL INDEX" WITH PAGES, SEE PAGE 77.]

- Acid Chambers.**
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[Continued on Page 77.]

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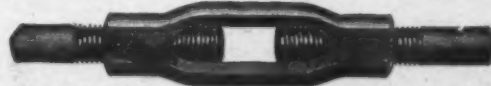
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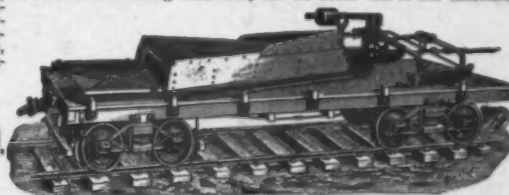
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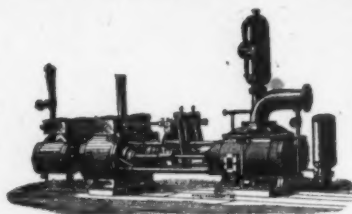
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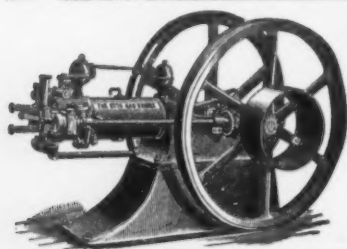
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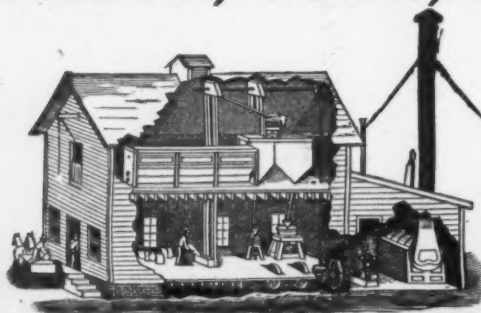
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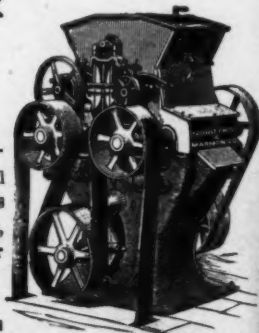


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MANUFACTURERS' RECORD

A Southern Industrial, Railroad and Financial Newspaper.

VOL. XX. No. 12. }
WEEKLY.

BALTIMORE, OCTOBER 24, 1891.

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BALTIMORE, OCTOBER 24, 1891.

Senator Camden's Railroad Work in West Virginia.

The work of development which is being done in West Virginia by ex Senator Camden is partly outlined in a letter in this issue by our special correspondent, Mr. Grasty. Senator Camden has for some years been actively engaged in gradually building up a railroad system which is destined to become one of the greatest freight carriers in America, because it is opening up regions that cannot probably be surpassed anywhere on this continent in wealth of coal and timber. Some parts of this system will also penetrate a country rich in high-grade iron ore, thus combining coal, ore and timber as a foundation for an enormous freight traffic. The building of this system and the development of the county tributary to it has engaged Senator Camden's attention for some years, and in doing this he has accomplished a great work for the whole State.

IN renewing their advertising contract for another year the Empire Paint & Roofing Co., of Philadelphia, write:

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Pig Iron Production.

The rate of production of pig iron is now at the highest point ever reported with one exception, and that December 1, 1890, when 340 furnaces were in blast and turning out 183,846 tons a week, against 306 furnaces, with a weekly capacity of 181,615 tons, now in blast. The increase in the weekly rate of production on October 1, as compared with September 1, was nearly 11,000 tons. The monthly report of the Iron Age gives the weekly product of all the furnaces in blast on October 1 compared as follows with that of preceding periods:

	Furnaces in blast.	Capacity per week, gross tons.
October 1.....	306	181,615
September 1.....	299	179,846
August 1.....	296	169,576
July 1.....	293	171,115
June 1.....	298	146,782
May 1.....	227	115,590
April 1.....	228	113,483
March 1.....	257	134,525
February 1.....	294	146,059
January 1, 1891.....	302	167,599
December 1, 1890.....	340	183,846
November 1.....	342	177,958
October 1.....	336	179,263
September 1.....	323	171,776
August 1.....	324	164,798
July 1.....	336	175,727
June 1.....	345	180,791
May 1.....	314	180,099
April 1.....	344	178,474
March 1.....	343	180,991
February 1.....	334	173,651
January 1.....	331	174,038
December 1, 1890.....	328	169,151
November 1.....	323	165,245
October 1.....	311	151,057
September 1.....	294	134,068
August 1.....	286	145,899
July 1.....	285	141,419

This was divided as follows:

	No.	Capacity, tons.
Anthracite furnaces.....	85	32,459
Coke furnaces.....	163	135,997
Charcoal furnaces.....	58	13,159
Total.....	306	181,615

As compared with December 1, 1890, the date of the highest point of production, the weekly capacity of the anthracite furnaces in blast shows a decrease of 11,000 tons, while the coke furnaces show an increase of 8,300 tons and the charcoal furnaces an increase of about 400 tons.

Notwithstanding this enormous rate of production and the fact that the railroads are still practically not in the market yet for rails and iron for general betterments, there was a decrease in stock. The amount of stock on October 1 and September 1 compares as follows:

	Coke, tons.	Anthracite, tons.	Charcoal, tons.	Total, tons.
October 1.....	198,587	144,793	145,179	488,559
September 1.....	193,825	149,227	134,774	477,826
Decrease.....				7,360

With a weekly consumption of iron of a little over 181,000 tons, our stock of 488,000 tons is about equal to two and a-half weeks' consumptive requirements.

What is the outlook in view of these facts? is a question that is being very generally discussed at present. For nearly two years the railroads have been very small consumers of iron and steel in any form. Last year's great shortage in grain crops, and that followed by the panic, prevented the building of much new road and delayed the improvements needed on old ones. Even the strongest systems have done as little repair and improvement work for 12 or 15 months as possible, the financial conditions making it unwise to attempt to float new securities. In the meantime the country has continued to increase in population and wealth, and industrial interests have made great advances. This year's crops are the largest on record, the aggregate yield of grain being about 3,500,000,000 bushels, or over 1,000,000,000 bushels more than in 1890.

Nearly every other crop, such as fruits—peaches, apples, grapes, oranges—tobacco, etc., shows an almost equal gain over last year's yields. Moreover, with this enormous grain crop, prices, instead of being depressed, as heretofore in years of extra big crops, are high enough to yield large profits to the farmers, thus insuring a degree of prosperity in all agricultural interests that has not been seen for at least ten or twelve years. But out of the 3,500,000,000 bushels of grain produced, probably not over 150,000,000, or possibly 175,000,000 bushels, or about 5 per cent. of the total, has yet been sold. Not until the bulk of the grain has been gathered and sent to market will the full effect of this great yield be felt in mercantile, manufacturing and railroad circles. This will not be until spring and summer. Many business men have overlooked this, and expected an immediate activity in advance of the selling of the crops; or, in other words,

they anticipated that business would discount future conditions.

In addition to this the money market has not fully recovered from the effect of the panic, and comparatively few new securities have been floated either in Europe or at home. This restricts the construction of railroads and the improvement of old lines. As soon as capital commences to seek new investments, as it must soon inevitably do, and the railroads shall have increased their earnings from the immense winter traffic now assured, there must come increased activity in railroad building enterprises. Old lines must relay tracks and add new rolling stock on a very liberal scale, and the increase in the country's trade will justify much activity in the construction of new roads. When this takes place the railroad demand for iron and steel will increase very rapidly. The furnace capacity of the country is not yet fully employed, notwithstanding the heavy rate of production, but it is quite probable that an active demand from railroads would necessitate such an increase in output as to require the blowing in of every furnace that can make iron at a reasonably low cost. There are a number of new furnaces in the South about completed which could go into blast, should the demand for iron increase, as soon as sufficient ore could be obtained. It is probable that the failure to provide for ore in advance of the building of the furnace will keep a number of stacks idle for some months.

THE editorial on the Georgia-Alabama Investment & Development Co., in another column, was written for last week's paper. After it was written we received the United States Investor, of Boston, for October 10, in which was published an elaborate article on this company, which the Investor says a Boston daily paper was paid \$750 for suppressing. Persons interested in the company are advised to send for a copy of the Investor of the date mentioned.

Subscribe to the MANUFACTURERS' RECORD.

The South at the World's Fair.

The editorial in the MANUFACTURERS' RECORD of October 10, urging upon the South the importance of making vigorous efforts to be adequately represented at the World's Fair, has aroused great interest, and we have received a number of letters regarding it. The governors of several Southern States have written to the MANUFACTURERS' RECORD on the subject, but we regret to say that only one of them, Governor Fleming, of West Virginia, has been able to give any assurance of a State exhibit worthy of the South's vast resources. West Virginia, the youngest of the Southern States, and the one that is just beginning to put forth efforts to attract capital, under the lead of its enterprising and progressive governor, has taken the necessary steps to prepare a splendid display of its mineral, timber and agricultural resources. We commend Governor Fleming's letter to the people of the South:

STATE OF WEST VIRGINIA,
EXECUTIVE DEPARTMENT.

CHARLESTON, W. VA., Oct. 10, 1891.

Editor Manufacturers' Record:

At the last session of our legislature \$40,000 was appropriated for the purpose of aiding in this work. Under the act making this appropriation five State commissioners have been appointed to take charge of the preparation of an exhibit. Hon. Wm. N. Chancellor, of Parkersburg, was selected president of this board, and Hon. George M. Bowers, of Martinsburg, treasurer. The money appropriated is drawn on the estimates of the State board after approval by the governor. This board has held several meetings, and has adopted the plan for the West Virginia building, which will be constructed on the grounds at Chicago out of West Virginia materials, the intention being to make the building itself an exhibit of some of our hard and soft woods, stone, brick, etc. It is estimated that this building will cost about \$20,000. Our people are heartily in the work, and will furnish a great many exhibits free of cost to the State. The owners of our collieries and coal mines will supply exhibits of our coals that will astonish the world. Our exhibits of coke will show that nowhere else can be found better coke than in West Virginia. Our lumbermen and owners of forest lands will furnish a most interesting display of our hard and soft woods, which cover 8,000,000 acres of land. Owners of our great iron-ore beds will have their fine ores represented there. Our specimens of petroleum, taken from 1,400 to 3,000 feet below the surface, will prove West Virginia a most valuable oil-producing territory. We will have our fire-clays, lime and sandstones and glass sands there. Our manufacturers of almost every conceivable kind will make an exhibit that will compare favorably with those of older and richer States. Our farmers will send of their products choice specimens of the products of the soil grown upon our fertile lands. Our money will be economically and properly expended, and with the private aid which will be tendered and supplement the appropriation, West Virginia will have an exhibit of which none of the citizens will have occasion to be ashamed, and which will attract the attention of the people from every county there assembled.

A. B. FLEMING.

Governor Northern, of Georgia, writes as follows:

STATE OF GEORGIA,
EXECUTIVE DEPARTMENT.

ATLANTA, GA., October 12, 1891.

Editor Manufacturers' Record:

I regret that I have to say that Georgia has done nothing toward preparing for an

exhibit at the World's Fair. A convention was held in Atlanta, of which I was chairman, for the purpose of arranging plans by which an exhibit might be made. This convention had to face the question whether or not our constitution authorizes an appropriation of money for such a purpose. While there was a wide divergence of opinion as to the constitutionality of such an appropriation—able lawyers contending for both views—it was generally believed that the State constitution contained no provision which would authorize the use of money for the purpose of an exhibit. With popular sentiment against the constitutionality of the appropriation, the general assembly would not, of course, make it, and when left to individual effort the prospect of a creditable exhibit was hopeless. I do not think, therefore, that there is any prospect that Georgia will have an exhibit at the World's Fair. There does not seem to be any prospect, at least at this time. It is hoped by friends of the movement that an effort may yet be successful, either through State aid or individual enterprise, and that the most prosperous State of the South and the greatest railroad-builder of the Union will be creditably represented in the great exposition. I have striven and hoped toward this end. I recognize the wonderful opportunity that is presented for Georgia to make known her vast resources and her matchless enterprise, and I feel that the State will suffer by her failure to make such an exhibition of her riches and her native pluck. Other States will reap the advantages which Georgia neglects, and we shall, I fear, regret for a long time the poor economy of refusing to advertise our worth and our wealth to the world. But another year may bring about changes in popular sentiment and make the exhibit possible. I trust that such may be the case; and in that event we shall be at Chicago with an exhibit that will match any that can be made by any State in the Union.

W. J. NORTHERN.

From Governor Jackson, of Maryland, we have:

EXECUTIVE MANSION,
ANNAPOLIS, MD.

ANNAPOLIS, MD., October 13, 1891.

Editor Manufacturers' Record:

I agree with you that the South, especially Maryland, should take active measures to be well and creditably represented at the World's Fair in Chicago, but as no appropriation has yet been made nothing can be done towards the erection of State buildings or the appointment of commissioners to look after and take care of exhibits from our State. In my message to the general assembly I will urge a liberal appropriation, which will doubtless be granted, when active measures can be taken to secure a handsome exhibit from our State.

E. E. JACKSON.

In most of the other States efforts are being made to secure funds by private subscription for making exhibits at Chicago, but as yet West Virginia is the only Southern State that can with certainty be counted upon to make a creditable display. Other States probably will do so, but there is no positive assurance of it, because in none of them has the money yet been provided.

If the governors of the Southern States were all as enterprising in helping to build up their States as Governor Fleming, of West Virginia, the MANUFACTURERS' RECORD believes that far greater progress would have been made in preparing for the World's Fair. The following letter from the secretary of the governor of

Tennessee, showing that the governor is not even aware of what efforts are being made in that State, reflects, we are afraid, the condition in a number of other Southern States whose governors do not even take the trouble to acknowledge the receipt of letters of enquiry when accompanied by a return stamped envelope:

EXECUTIVE OFFICE.

NASHVILLE, TENN., October 16, 1891.

Editor Manufacturers' Record:

Your favor of some days ago received at this office. The governor is not officially connected with the board of managers for the World's Fair and is not in a position to know what is being done by way of private subscription, etc. The State has made no appropriation. Hon. Thomas L. Williams, of Knoxville, is the Federal commissioner for Tennessee, and can give you the desired information.

T. BUCHANAN, Private Secty.

When all of the Southern States learn, as some of them have done, to appreciate the importance of putting able, broad-minded business men in their gubernatorial chairs—men who have been trained in handling business enterprises of magnitude rather than in manipulating politics—there will come a period of progress in everything that tends to the enrichment and upbuilding of the South greater than has ever been known.

Northern and Western States, which are already well supplied with capital and which do not need to attract men and money one-tenth as much as the South, are preparing for the most elaborate exhibits to cost from \$50,000 up to several hundred thousand each. The South, with all its vast resources scarcely touched, with unlimited possibilities for development, with an unequalled climate—in fact, with everything that nature could furnish to make it the richest country in the world, needs capital and men of energy and enterprise more than any other section of the country. And yet it is neglecting to make preparations for taking advantage of the best opportunity ever offered to attract the attention of Europe and America.

Additional Banking Capital Needed.

The need of additional banking capital in Winston, N. C., is pointed out in the letter of our correspondent at that place, published in this week's issue of the MANUFACTURERS' RECORD. With a population of about 16,000, a trade aggregating about \$10,000,000 a year, which is rapidly increasing, with an enormous tobacco business, and with a yearly pay-roll of \$1,000,000 to the hands employed in the factories now in operation, Winston has only three banks with an aggregate capital of \$500,000. An unusually inviting opportunity is here presented for a large increase in banking capital, either by the establishment of a new bank or by an increase of capital in one or more of the banks already in operation there. There is probably no town in the United States where business is on a more solid and healthy basis than in Winston.

An Important Deal at Sheffield

It was stated in the MANUFACTURERS' RECORD of last week that Mr. W. M. Duncan had secured an option on all the property of the Sheffield Land, Iron & Coal Co. The capital stock of the company is \$1,000,000, and the price at which Mr. Duncan takes it is \$976,000, or 97 cents on the dollar. For the purpose of purchasing this property and the development of Sheffield, Mr. Duncan has organized two companies, one the Sheffield City & Land Co., capital stock \$5,000,000, of which one-half was, it is reported, promptly subscribed, and the Alabama Security & Trust Co., capital stock \$1,000,000, paid in full. These new companies will have cash in hand to carry out their various enterprises, to build extensive water works and such other improvements as may be needed and to aid in the general development of all industrial interests tributary to Sheffield. It is understood that the three idle furnaces at Sheffield will be put into blast, thus giving that place five large furnaces in active operation. Sheffield, like a number of other places, has been passing through the strain of financial stringency, and hence its growth during the last year or two has been comparatively slow, but with these companies at work and with local money matters straightened out it will be in a position to take advantage of the general activity that is promised for the business interests of the whole country.

To Solve the Question of Diversified Farming in Georgia.

The prosperity of the farmers of the South as a class depends upon raising their own food supplies. When this shall have been done and cotton be made a surplus crop, the agricultural interests of the South will prosper as never before. In Georgia the women have taken up the matter, and at a late meeting of the State Agricultural Society it was unanimously resolved—

1st. That we respectfully and earnestly urge each and every farmer in Georgia to survey from his farm from five to ten acres of land adjacent to his dwelling, said acreage to be known as "The Wife's Farm," and it shall be devoted exclusively to the culture, on the intensive plan, of grain, grasses and vegetables to supply an abundance of food for the table, feed for the horses and mules, poultry and pigs of the barnyard, and for the gentle Jerseys of the dairy.

2d. That the husband shall pledge his wife that he and all of his employees shall work in said "Wife's Farm" one-half hour or one hour each working day of the year before breakfast, whilst the wife is cooking or having the same prepared.

3d. That we consider this an easy solution of the vexed question of commercial independence, contentment and happiness of our Southern farmers.

After doing this Mrs. Wm. H. Felton, of Cartersville, was requested to undertake the work of organizing a club in every county in the State to press this matter upon the attention of the farmers.

The Georgia-Alabama Investment & Development Co.

It is stated that the Georgia-Alabama Investment & Development Co. has been very successful in selling the stock it has so energetically and lavishly advertised during the last few months, and that sales have been made in every part of the United States and in several European countries. If this be true, it only goes to show the mighty power of advertising. It is difficult to see how anybody could read the advertisements of this company and then invest a dollar in its stock. The most careless analysis of its statement of assets and expected revenue will reveal its utter absurdity. It is the wildest and most unbusinesslike financial presentation ever given to the public. Manifestly its promoters have had no expectation of catching business men. They have been fishing for the inexperienced and unwary whose imaginations are inflamed by glittering promises, and whose confidence is secured by the parading of the names of noted men, the identification of whom with the company has in some way been procured.

The Georgia Alabama Investment & Development Co. is the latest of a succession of concerns that have in turn had the ownership of the town of Tallapoosa, Ga. In the advertisements offering its stock for sale it enumerates its assets as follows:

- 1st. 8,000 city lots, or 2,022 acres of land in the city of Tallapoosa, Haralson county, Ga., the residue remaining unsold of 2,500 acres, on the center of which the city was originally built. Estimated value on organization of company October 1, 1890, \$1,084,765 but largely increased in amount and present value since that time by additional purchases of city lands and improvements and development added.
- 2d. 2,458 acres of valuable mineral land adjacent to the city of Tallapoosa, all located within a radius of six miles from the center of the city. Present value \$122,920.
- 3d. The issued capital stock of the Georgia, Tennessee & Illinois Railroad Co., chartered for the purpose of building a railroad from Tallapoosa, Ga., to Stevenson, Ala., 120 miles, that will net the company nearly \$200,000 of the capital stock of railroad paying 7 per cent dividends.
- 4th. The Tallapoosa furnace, on the line of the Georgia Pacific Railroad, in the city of Tallapoosa, Ga., the said furnace being of 50 tons capacity, manufacturing the highest grade of cold and hot blast charcoal car wheel iron. Present value \$250,000.
- 5th. The Piedmont glass works, situated on the line of the Georgia Pacific Railroad, in the city of Tallapoosa, Ga., said plant being 72-pot furnace capacity, and manufacturing flint-glass flasks and prescription ware. Present value \$100,000.
- 6th. The Tallapoosa reclining chair factory, on the line of the Georgia Pacific Railroad, in the city of Tallapoosa, Ga., manufacturing hammock, reclining and other chairs. Present value \$25,000.
- 7th. Sundry interest bearing bonds, notes, mortgages, loans, stocks, etc., acquired since the organization of company in securing the location on its property of new manufacturing industries, and from sales of its city lots and cash in bank received from the sale of treasury stock for improvements not yet invested.

1. Under the booming done in the early days of the town the sales of lots were very large, reaching, as shown in the foregoing statement, an aggregate of about 500 acres. This, of course, was the centrally located property. The outlying land now owned by the company would, in the present stage of development, be dear at \$200 an acre. It could probably not be sold at an average

of \$100. It is doubtful if a purchaser could be found at \$50. At even \$200 an acre the aggregate value of its 2,000 acres would be \$400,000. Purchasers of stock are asked to consider it worth \$1,084,765.

2. Hundreds of thousands of acres of mineral land in the South, infinitely more valuable than any "within a radius of six miles from the center of the city" of Tallapoosa, can be had for \$10 an acre. At \$20 an acre the company's 2,458 acres would be worth about \$50,000. The valuation put on it in the foregoing enumeration is \$122,000.

3. The Georgia, Tennessee & Illinois Railroad Co. owns a charter. Not a mile of road has been constructed, and there is no special reason for believing that such a road ever will be built. Instead of a \$2,000,000 asset, as this proposed railroad company's proposed stock is listed, its value is nothing.

4. The 50-ton furnace is put down as worth \$250,000. With material, machinery and all appliances of the best and costliest kind, it would be difficult to spend half of \$250,000 in the construction of a furnace to make 50 tons of iron a day.

5. The glass works and chair factory are put down at \$100,000 and \$25,000, respectively. We don't know approximately the real value of these.

The advertisements set forth that "the income of the company is derived principally from six sources":

- 1st Earnings of its manufacturing establishments now in operation and to be built (now \$76,234.04 yearly).
- 2d. Rentals of its farming lands and sales of timber in "stumpage" (estimated \$3,000 yearly).
- 3d. Sales of its city lots in Tallapoosa, Ga., for improvement and investment (estimated \$250,000 yearly).
- 4th. Working of its mines and quarries, by themselves or on "royalties" (estimated \$10,000 yearly).
- 5th. Profits on mineral, timber and town-site options on line of Georgia, Tennessee & Illinois Railroad (estimated \$50,000 yearly).
- 6th. Earnings of stock of Georgia, Tennessee & Illinois Railroad (estimated \$186,408 yearly).

1 The claim that the 50 ton furnace, the glass works and the chair factory are earning \$76,234.04 a year is a patent absurdity.

2. The company only claims to own 2,458 acres of land besides its town land. This is classed as mineral land. It can't be also all covered with timber and at the same time all suitable for farming purposes. To provide an annual revenue of \$3,000 the part of it that can be farmed must yield an unheard of rental, and the timber must be of a sort that is renewed annually by a new growth.

3. As intimated above, Tallapoosa has got to do a prodigious amount of growing before there can be any need for building lots beyond the central 500 acres already sold for that purpose. And yet the stockholders, or they whom it is sought to make stockholders, are lured by the prospect of an immediate income of \$250,000 a year from that source.

4. This 2,458 acres of "mineral land" is a sort of Monte Cristo cave.

First it is to yield \$3,000 a year from farm rents and timber "stumpage," and now, in addition, the company is to receive annually \$10,000 in royalties for working mines on it.

5. At some time in the future, when it has been demonstrated that a railroad from Tallapoosa to Stevenson, Ala., is likely to be profitable; when the project has passed through all the vicissitudes of "promotion," when bonds have been sold and the money raised and work on such a road begun, it is possible that somebody may go along the projected route and take some options on land and afterwards sell them at a profit. That a continuous revenue of \$50,000 may be looked for from this quarter is one of the silliest of the silly claims in this remarkable presentation, and its silliness is multiplied many times by the additional claim that the Georgia Alabama Co. may include this in a list of its present sources of income.

6. In this list of its six sources of revenue the enumeration proceeds in an ascending scale of preposterous claims. The climax is reached in the sixth, where the second largest item (\$186,408) of the company's revenue is in the shape of expected dividends on the stock of a railroad that has not been built, for which not even have bonds been sold, and which exists only as an imagined possibility. Supposing the road can be shown to be a necessity, or to have prospect of business; supposing the money shall be raised to build it; supposing it shall be completed and operated; supposing it shall at the outset be overwhelmed with business; supposing at the end of its first year of operation it shall have earned enough to pay the interest on its bonds and leave a balance for dividends, by what sort of magic has the Georgia-Alabama Co. been enabled to gather from the future such data as that it can estimate that the amount of such dividend will be exactly \$186,408? Since the company is to own, according to the first of the two foregoing lists, "nearly \$2,000,000 of the capital stock" of this hypothetical road, this dividend, figured out so accurately, is at the rate of something over 9 per cent. And this 9 per cent. dividend on a railroad that has not been begun or even financed is put down as one of the largest inducements to people to buy the stock of the Georgia-Alabama Investment & Development Co.

This remarkable financial statement has been before the public for some months. It has seemed that to point out its extravagance and preposterousness would be a work of supererogation. But the reports that a very large aggregate amount of the company's stock has been sold in this country and abroad, and the inquiries that have recently been coming in to us as to the value of this stock indicate that a great many unthinking people have been caught by the enticing promises with

which the company's advertisements abound, and have paid little heed to the absolute lack of foundation for these promises.

It is quite possible, of course, that the town of Tallapoosa may grow to be a place of considerable size and importance. We are not dealing now with the advantages or resources or possibilities of the locality, but with the Georgia-Alabama Investment & Development Co., and the methods by which it seeks to beguile people into putting money into its treasury.

Petty Jealousy that Injures the South.

One of the most astonishing things in connection with the growth of Southern industrial centers has been the intense jealousy aroused in other towns as voiced in constant misrepresentations and denunciations by their papers of the newer places. Birmingham had to contend against the bitterest fights by papers all over the State, then came Anniston's turn, and so it has been with every town that commanded public attention as a rapidly growing center. Middlesborough has recently had to suffer in this way, and many Kentucky papers have apparently exulted in the temporary depression there, due to the delay in the receipt of money promised by the English stockholders to carry out projected enterprises. The Frankfort Capital, commenting on this, says:

Has it occurred to the press of Kentucky that Middlesborough is in this State; that it is being built by foreign capital which we have every good reason to welcome; that it is developing a section that has hitherto been as a sealed book to other portions of the country; that, together with the improvements at Pineville, it has taken Bell county out of the list of pauper counties and made it self-supporting? These things being remembered, it is difficult to understand the almost jubilant air with which the press has noted the recent financial and other difficulties that have temporarily retarded the progress of the new city. Middlesborough is a fixed fact. The capitalists who have expended so much money there cannot afford to let it fail, and it does not depend upon the good or ill will of the press for its success. But why should it not have the good will of the press? It is surprising that such a question should even require to be asked.

Fortunately the money needed to carry out the work of development at Middlesborough has been raised, but even this will probably not stop the misstatements about the place. The South will be seriously injured and its progress retarded just so long as this evil spirit of jealousy is allowed to have full sway. It is time that the business men of the South awakened to the importance of a broad spirit of encouragement to every enterprise that looks to Southern advancement, whether it helps their immediate section or not, and that such a spirit as this should find expression in every Southern paper. Away with the petty jealousy that can only find pleasure in attempting to injure other places or other enterprises.

The Bessemer Ores of Texas.

Mr. C. P. Huntington has signed a contract to extend the Austin & Northwestern Railroad of Texas from Burnet to Llano, the center of the new iron producing region of the Lone Star State. The first move made toward the development of the Llano iron district was that made by George M. Wakefield, of Milwaukee, who is at the head of several syndicates which now own many thousands of acres of land located directly on the iron range. Mr. Wakefield, by his prospecting, has become convinced that his Texas properties contain very valuable deposits of ore. The development of the mines has been delayed by the lack of railroad facilities, but this detriment will soon be overcome.—Milwaukee Realty and Building Record.

Some five or six years ago Mr. Wakefield, who had been identified with the Lake Superior iron ore developments, wrote to the MANUFACTURERS' RECORD about the great discovery of Bessemer ores near Llano, Texas, which his investigations led him to believe was the center of the greatest Bessemer ore region of the world. This was probably the first publication ever made which gave any reliable facts about this new ore territory. Mr. Wakefield and his associates made investments there, and the Llano Furnace & Improvement Co. also made heavy purchases of many of the best properties in Llano county. During all this time investigations have been in progress by the Llano Furnace & Improvement Co. to determine the extent of this ore, and a great deal of work has been done with the diamond drill by the best experts. These investigations have more than confirmed the first reports, and now that Mr. Huntington has signed a contract with that company to complete a railroad to Llano by April 1, there is a certainty of a rapid development of this great Bessemer ore district. It is stated that this ore can be mined and put on the cars at a cost of not over \$1 a ton.

The Much-Talked-of Pan-American Transportation Co.

The MANUFACTURERS' RECORD has already expressed its opinion on several occasions of the efforts of the Pan-American Transportation Co. to secure subscriptions to its stock in Galveston, New Orleans and Mobile, and stated that the scheme looked very visionary. The Galveston News reports an interview with Mr. J. B. Clark, the president of the company, who was very indignant because Galveston didn't subscribe to his stock, in which, among many other foolish things, he is reported as saying:

"I'll bet \$100 right now that Galveston has seen the last cent of money she will ever get from the government for her harbor," he said after a pause. "Not a single dollar more will she get, and the law authorizing the expenditure of \$6,200,000 here will be repealed at the next session of Congress. I'll bet that this comes out that way. Velasco is going to fight against that appropriation, and Velasco will not be alone in the fight. The bill would never have become a law if it had not

been for this Pan-American line of steamships. Galveston has refused to take any stock in that line, and of course the necessity for improving the harbor no longer exists.

"I am going to put a line from South America into New Orleans, and I am going to fight Galveston to the bitter end. The Rock Island has been trying to get to Galveston. It was the steamship line that was drawing them here. When the road finds that Galveston has refused to have anything to do with the steamers the road will refuse to have anything to do with Galveston. I'll bet you don't hear anything more of the Rock Island coming here. There's the Santa Fe, too. I have it on good authority that the managers are going to ask permission to pull up their tracks and leave the whole State. They say they can't do business here because they are hampered by the commission. Where will Galveston be then?"

"Just wait until I get to Chicago and see if I don't give Galveston hell all the way through."

The utter absurdity of these statements is too apparent to need any comment. If Mr. Clark is correctly reported, the MANUFACTURERS' RECORD spoke none too soon in advising the business men of Southern ports to examine into this company very closely before putting any money in it. It seems hardly possible that a business man of any sense whatever could have spoken as Mr. Clark is reported to have done, and it may be possible that he has been misquoted.

THE people of Switzerland were among the first in Europe to appreciate the value of the discovery that water-power could be transmuted into electric energy and applied, at a considerable distance from its source, by means of a suitable wire. At present the water-powers of that country are being utilized at a rate that one of the Swiss monthly papers has urged the government to take up the matter to save the people from a monopoly.

IN discussing financial affairs, the New York Commercial Bulletin says:

During the past week there has been a very marked improvement in the payments of Southern merchants to this center. Long-outstanding arrears are being liquidated, and altogether the indications show a generally improved financial condition in that section. The unusually large quantity of cotton coming into market is undoubtedly one of the causes of this gratifying improvement.

THERE is very great ignorance about the eastern part of North Carolina, and comparatively few people fully appreciate the resources and the possibilities of that section. There are probably few who are aware of the fact that a trucking farm in Eastern Carolina for which \$8,000 was paid only a few years ago is now yielding an annual profit of nearly \$100,000. With a view to making known the advantages of that section and of telling what has been accomplished in its development the Norfolk & Southern Railroad Co. employed Mr. Frank A. Heywood, a New England journalist, to study the country and then prepare a pamphlet about it. Mr. Heywood has done his work, and the result is a very attractive 64-page pamphlet which should have a wide circulation. It can be obtained from the Norfolk & Southern Railroad Co., Norfolk, Va.

PRESIDENT KIMBALL TALKS.

What the Norfolk & Western Is Doing.

Vigorous Work all Along the Line.

[Special Cor. MANUFACTURERS' RECORD.]
PHILADELPHIA, PA., October 20, 1891.

President F. J. Kimball, of the Norfolk & Western Railroad, has just returned from Europe. He was seen to day by a representative of the MANUFACTURERS' RECORD, and although he was making preparations to leave the city on a flying trip to Ironton to see the center span of the great Norfolk & Western bridge swung across the Ohio, yet he had time to speak briefly of the results of his trip abroad and the condition of the Norfolk & Western's affairs. President Kimball modestly objects to being interviewed formally, and the subsequent remarks therefore do not follow the trend of the conversation.

It will be gratifying to those interested in the success of the Norfolk & Western to know that President Kimball's trip abroad has been eminently successful, and that the work on all the extensions will now be pushed forward with greater vigor than ever. The first thing to demand the immediate attention of the company will be the completion of the Ohio extension. To-day the center span of the great bridge across the Ohio will be swung, and by December 1 the bridge will be completed and trains running over it. A photograph of the bridge taken last week was shown to the MANUFACTURERS' RECORD's representative, and although but two spans on either side of the center span are finished, yet the picture showed very clearly that the structure will not only be substantial, but beautiful. The center span will be 532 feet in length and will be 100 feet above the water. The two spans at each side make a complete and harmonious balance.

By December 1 60 miles of track on the Ohio extension will be completed as far as the bridge, and regular trains will be running to Columbus. The mere mention of this fact does not convey any adequate idea of the importance of this move, not only upon the interests of the South, but also upon those of the North and West. Coal is now being mined along the line of the Ohio extension, and as soon as the bridge is open for travel there will be shipments made of the fine splint coal to be found in this region. Specimens of this coal seen in Mr. Kimball's office are as fine as any ever mined, and the opening of this source of fuel to the people of the North and West must prove not only a boon to them, but also to those who have had the capital and faith to open the mines and to build the timely extension to an already great system of railroads.

President Kimball confidently expects to have the whole of the Ohio extension completed by the first of July next year. This will be most welcome news to the owners of the 2,500 coke ovens in the Flat Top-Pocahontas region. It will mean for them an extension of the field of the demand for their coke so as to include all the North-west and the West. While this market has never been denied to them, yet it has never been open to them under such favorable auspices. With the connections which the Norfolk & Western can make at Columbus it is possible to distribute the coke to any section in the West and Northwest as readily as if it had come from the Connellsville region. As experts are fully agreed that Pocahontas coke is fully the equal of Connellsville, it will share the market now almost exclusively occupied by the latter, and possibly create a new demand of its own. The opening up of the Ohio extension will mean something more than the sale of coke. It will mean the development of more mines, the employment of more hands, an increase of general busi-

ness in the sections affected and a growth of business with the railroad. This must bring with it an era of prosperity along the line of the road that will be sure to have a healthy and helping influence on the whole South.

In addition to the Pocahontas coke, a market will also be found for the steam and coking coal, the gas and domestic coal of the region immediately traversed by the Ohio extension. While this region is as yet comparatively undeveloped, there is a rich deposit of all these coals, and it will be a question of only a short time when the earth will be compelled to yield her rich stores of buried treasure at the imperious command of modern progress.

Further extensions in the Cripple creek regions will soon be made, to meet the growing demands of that richly favored section. The Cripple Creek extension has been extraordinarily successful. It has been the means of bringing forward many new mining enterprises and of developing an important iron industry. The quality, richness and uniformity of the iron ore found in this region is unsurpassed, and the accessibility of the mines and furnaces to the extensions of the road that have been made from time to time all combine to make the production of iron both excellent and cheap. In addition to the iron ore, the Cripple creek region offers many advantages for the manufacture of iron, zinc and lead, while, owing to the climate, water supply and a rich surrounding agricultural country, it is admirably adapted for manufacturing centers. Radford and Pulaski are certainly cities of the future. It is the intention of the management of the Norfolk & Western to increase their extensions in the Cripple creek region as fast as needed, and in that way it is hoped thoroughly to develop the wonderful resources of this magnificent region.

Although President Kimball had been home but 24 hours when the MANUFACTURERS' RECORD representative saw him, yet he said that the first thing he heard about on his arrival home, and the last thing he had just talked about, was the demand for more cars to take care of the increased and the increasing traffic. With new industries springing up all along the line of the road, the management find that it is almost impossible to keep pace with the almost phenomenal growth of trade. Not only is new business being introduced, but the old customers are bringing an increased amount of business. While every effort is made to accommodate all, yet it only was with great difficulty that it was done. It has always been the policy of the Norfolk & Western to encourage and build up the local traffic, and the result has been that they are reaping the ripe fruits of wise and vigorous policy.

A good idea of the growth of the traffic of the Norfolk & Western may be obtained from a knowledge of the fact that during this year the road has transported, from the Clinch Valley extension to tidewater, 1,000,000 bushels of wheat for export. This is especially significant when the additional fact is learned that last year not a bushel of wheat was transported for export. This is all new business. There is a deeper meaning to it than even that statement conveys. It is that the Southern farmer realizes that there is money in other farm products than cotton and sugar, and he is prompt to take advantage of it. While, of course, all this wheat was not produced in the South, yet it is reasonable to infer that much of it was raised there. The moment that the farmer in the South begins to diversify the products of his farm, he will begin to feel the excellent results which will follow a better policy.

The greater number of small industries that have sprung up along the lines of the Norfolk & Western are in a great measure responsible for the increased measure of success that has fallen to the lot of this

successful road. Giving, as they do, employment to a large number of people under circumstances that make them independent, while giving them the responsibilities that attach to the ownership of property and its consequent conservatism, it will be seen that it must conduce to the happiest results. This has been amply proved in the case of the Norfolk & Western, where small industries were encouraged by offering to them every facility for their advancement and perpetuity. Never was a liberal policy better justified or better repaid.

President Kimball reports that the export trade of Norfolk is constantly increasing. The preparations that the company has made in anticipation of a great export trade would seem to have ample justification in view of the increase of trade in the past year. It is expected that the exports from Norfolk this year will show a marked increase over those of last year. To be prepared for the future, it will be the policy of the company to further, to improve the equipment and to increase the number of cars, so that nothing will be left undone to aid in furthering the interests of the whole section.

On the whole, President Kimball is well satisfied not only with the present outlook of the company's affairs, but with its future prospects. With an increasing business pouring in from all quarters, with plenty of money with which to make the necessary extensions, and thereby further increase the business, he has every reason to be congratulated on the favorable view that presents itself. Without doubt, the Norfolk & Western is about to enter upon an era of prosperity such as it has never experienced, and with its prosperity there must come to the industries along its line, of which it has been fancifully called "the mother," a prosperity commensurate with its source.

English Investments in Middlesborough.

It is very gratifying to all friends of Southern progress to know that the English stockholders of the Middlesborough (Ky) Town Co. have agreed to invest \$1,250,000 in carrying out the enterprises under contract, the construction of which has been delayed by the general financial stringency. A few months ago the directors of this company sent over Mr. E. T. Powers, a clear-headed business man, to make a thorough investigation of all Middlesborough matters with a view to reaching a definite conclusion as to future operations. Before sailing for Europe Mr. Powers stated that he would strongly urge the importance of the stockholders providing the money needed to continue the work of development as begun, which included the completion of the South Boston Iron Works, the charcoal furnaces, water works, &c. At a special meeting held in London on October 12th this suggestion was adopted and the money needed to carry out these enterprises was, it is reported, promptly raised. As the Middlesborough Town Co. is a Kentucky corporation it will be necessary to hold a meeting in that State to ratify this action, and that is to be done in November.

The whole South would have suffered if the English investors in Middlesborough had refused to carry on the work which they had so auspiciously begun. Such action on their part would have injured the South by making foreign capitalists timid about investing in this section, but Middlesborough itself would have overcome its troubles, and other capital would have been found to carry on the developments already undertaken. The decision of the stockholders of this company to go right ahead in building up Middlesborough will prove of great value to the whole South.

FLORIDA PHOSPHATES.

Phosphate Shipments—Important Sale—New Plants—What Florida Has Done in Phosphates, and What She Will Do.

[Special Cor. MANUFACTURERS' RECORD.]

BARTOW, FLA., Oct. 17, 1891.

The steamship Mercedes, Capt. Stewart, from St. Luceus, West Indies, is now at Port Tampa loading 2,000 tons of phosphate from the Sterling mines for Statine, in the Baltic. Part of her cargo will consist of cotton.

The schooner Florence came into Port Tampa last week with a cargo of coal from Philadelphia for the Plant Steamship Line, and has been chartered by the Tampa Phosphate Co., and is now loading with phosphate for Baltimore.

The Alafia River Phosphate Co. has purchased the steamer Twilight, and is now having her overhauled and converted into a tugboat to tow the company's barges.

AN IMPORTANT SALE

of pebble phosphate land has been made within the last few days. Messrs. F. Lee, J. Strootman and R. Hoffield, of Buffalo, N. Y., have purchased 600 acres of pebble land lying on the line between Polk and Hillsboro counties (about half in each county), and will organize a company at once and put up an extensive plant. This land is on the headwaters of the Alafia river, and is very rich in phosphate. A branch will be built from some point on the South Florida Railroad to the mines. The price paid has not been made public, but it is generally understood that the "consideration" was expressed in a good many figures.

NEW MINES.

Capt. J. M. Searles, of Vicksburg, is now in Bartow preparing, it is said, to erect a plant on the valuable pebble deposit in Saddle creek, north of Bartow, which he purchased last June.

Judge G. A. Hanson leaves to-night for Kansas City, Mo., to purchase machinery for his new plant on Lake Hancock. His company has not yet filed articles of incorporation, but it is to be called the Lake Hancock Phosphate Co., I believe.

NEW PLANT IN OPERATION.

The Bartow Phosphate Co. has just completed its first plant, which is a very extensive one, and raised steam for the first time on the 12th. This company is mining land pebbles, and will, it is reported, erect another large plant near the present one.

WHAT FLORIDA HAS DONE IN PHOSPHATES.

Statistics of phosphate development in Florida, compiled for Hidden Treasures, the new phosphate pamphlet now in press and soon to be issued by the Courier-Information of this city, show that the production of phosphates in this State from the beginning of the industry in 1888 up to September 1, 1891, was as follows:

PEBBLE PHOSPHATE.		Tons.
Exported from Charlotte Harbor (official report).....	43,210	
Other Gulf ports (estimated).....	5,000	
Black creek via St. John river (estimated).....	3,000	
Received at Bartow and carried north by S. F. R. Co. (official).....	32,088	
		83,298
HARD ROCK PHOSPHATE.		
Exported from Port Tampa (official).....	10,235	
St. Petersburg (estimated).....	1,600	
Transported by F. C. & P. R. R. to Fernandina and other points (official).....	63,198	
		75,033

Total, tons..... 157,331

Only 911 tons were produced in 1888, and this amount was from T. S. Moorhead's experimental mine at Arcadia, on Peace river.

In 1889 the total output only reached 4,234 tons, and this was all pebble except 28 tons.

In 1890 the shipments were: Pebble, 29,126 tons; hard rock, 18,733 tons; total for the year, 47,859 tons.

The shipments for the first eight months of this year (1891) were (pebble and hard rock) 104,327 tons, and for the phosphate year ending August 31st, 131,240 tons.

It will thus be seen that the output of the eight months of 1891 was about double the amount produced in the three preceding years. Hidden Treasures presents the matter in tabulated form, giving shipments from different ports by months, together with names of vessels, destination of cargoes, etc., but the above condensed statement will suffice to show the progress of development.

A number of new plants have been completed in the pebble district since the statistics were compiled; others have increased their capacity, and still others are in process of erection. Many new mines are to be opened in the hard-rock district also, on the lines of new railways now building, and it is almost certain that the next phosphate year (ending August 31, 1892), will show a total production in this State amounting to 275,000 or 300,000 tons.

JAY SHRADER.

New Iron and Manganese Mining Operations.

VIRGINIA STEEL, IRON & SLATE CO., }
HOWARDSVILLE, VA., Oct. 12, 1891. }

Editor Manufacturers' Record:

This company is commencing the development of its mines in the counties of Albemarle, Fluvanna, Nelson and Buckingham, all of which counties corner near Howardsville, on the James river.

We are now opening a mine in Fluvanna county yielding a very fine manganiferous iron ore, which will run about 50 per cent. manganese and over 15 per cent. metallic iron. We will soon begin work on our manganese property, which is considered by experts to be one of the most promising in the United States.

We are negotiating with a syndicate for the rental of part of our splendid water-power and a building site on our property for a first-class flour mill, and also with other parties for the location of a cotton-spinning and dyeing plant.

It is believed here that the bridge across James river will be built, but this company is "not in it," and it has assumed no definite shape.

J. W. FOSTER.

River Traffic in the Mississippi Valley.

The census report of the traffic handled on the rivers of the Mississippi valley shows that in 1889 3,637 tons of freight were carried on the Red river of the North; 6,373,448 tons on the upper Mississippi and its tributaries; 9,080,526 on the lower Mississippi and its tributaries, and 15,600,439 on the Ohio and its tributaries—a total of 31,058,050 tons of freight moved on all the rivers of the Mississippi valley in 1889.

The total of passengers carried for all the rivers of the Mississippi valley was 2,334,248 regular, and 8,474,646 ferry, a total of 10,858,894.

The six principal commodities of the freight traffic were: Wheat, 11,071,504 tons; cotton, 686,635 tons; coal, 10,632,109 tons; iron ore, 536,197 tons; lumber and forest products, 10,531,239 tons; cottonseed and cotton oil, 392,888 tons. Other articles which were heavily carried were: Corn, 266,071 tons; animal products, 169,470 tons; sugar and molasses, 189,829 tons, and iron manufactures, 122,060 tons. Of mill products there were moved 88,709 tons, of hay 78,635 tons, while of unclassified freight there was a movement of 5,816,096 tons.

W. C. POWELL, secretary of the Baird Water & Power Co., of Baird, Texas, states that the company is compelled to postpone indefinitely the construction of its water works, but that the letters received from various contractors will be filed and attended to at a proper time.

IRON-MAKING IN TEXAS.

Large Contracts for Charcoal Iron.

NEW BIRMINGHAM, }
CHEROKEE CO., TEX., Oct. 10, 1891. }

Editor Manufacturers' Record:

New Birmingham iron is assuming a remarkable prominence for the manufacture of car-wheels, as is shown by the following sales made by Mr. Richard L. Coleman, the president of the New Birmingham Iron & Improvement Co., this month. Mr. Coleman has just returned from a two weeks' trip to St. Louis, and reports the following sales: Missouri Car & Foundry Co., 4,500 tons, to be delivered 500 tons per month, equal to 55 carloads per month for nine months. Another large Illinois car-wheel company will take 1,000 tons and smaller companies 190 tons, making a total of 5,690 tons, nearly a year's product of the Tassie Belle furnace, and when the New Birmingham Pipe Works are completed, which will probably be about the end of the year, the whole product of this furnace will be engaged for a year ahead.

In addition to sales mentioned above, the Tassie Belle furnace is shipping 200 to 300 tons per month to the celebrated Dickson Car-Wheel Works of Houston, also to Detroit, Mich., Denver, Col., and to Mexico.

This is a remarkable exhibit, and proves that New Birmingham has entered upon an era of prosperity that cannot be discounted.

The Star and Crescent Furnace, owned by the Cherokee Iron Co., New Orleans capitalists, is now complete and has been undergoing the drying process. This furnace has all the latest improvements for handling the ore and charcoal, and is most complete in every way. It will be blown in this or early next month, as soon as the railroad to their ore mines is completed.

An enthusiastic meeting of the directors of the Texas Real Estate Association was held here on the 7th and 8th instants. This is the association under which the Texas car exhibit has been sent out. The directors report remarkable success for these cars.

The real estate men were all highly delighted with our beautiful town and the charming hospitality they received while here, and all were thoroughly convinced of the wonderful future of this "the iron queen" of the State.

The inquiry for manufacturing sites here is very active. A woolen mill to be removed from Iowa is almost a certainty, and in connection with this a knitting mill is ready to negotiate. A large pottery world do well here, as our clays are found in magnificent abundance and of the very best quality for pottery and fire-bricks.

The town is growing and filling up rapidly, and there are now no houses to rent. About 10 or 15, however, are under way, and it is expected that more will be built shortly.

It is surprising the shortsightedness of railroad men that they do not build more quickly to this great freight center. Next month, when all our furnaces will be in blast, we will have a tonnage for this vicinity of 200 tons per day, or, with pig iron and other merchandise, equal to a value of \$460,000 per annum.

The International & Great Northern, from Palestine to Houston, carries about \$180,000 worth of freight per annum, and yet for the immense freight we have to ship would only require a line of 18 miles to make the connection with the International & Great Northern. Of course we have the Tyler Southern Railway, but this is a narrow gauge, and will not probably broaden until it is compelled to by competition.

We have, however, great hopes of the Omaha, Kansas Central & Galveston, which is now under contract to be built

from Superior, Neb., to Galveston. It must pass near us, and certainly ought to come here. If this were absolutely assured we could locate 10 or 15 new industries within the next few months.

Our weather here is delightful, and there are no two opinions about the Texas climate being the finest in the country.

ALAN ARTHUR.

The Big Deal at Sheffield, Ala.

The MANUFACTURERS' RECORD has recently mentioned the fact that W. M. Duncan, of Nashville, had secured an option on the property of the Sheffield Coal, Iron & Land Co., the company which founded the town of Sheffield, Ala., and that he expected to close the deal shortly. The Nashville American gives the following particulars of this great scheme:

"W. M. Duncan has returned from Sheffield flushed with the triumph of a magnificent stroke of finance, the details of which have in a measure been anticipated by previous publications. Last Wednesday a meeting of the stockholders of the Sheffield Land, Iron & Coal Co. was held in the office of the company to ratify the action of the board of directors in granting him an option for 60 days to purchase the assets and franchise of the company. The meeting, which was very harmonious, resulted in a majority vote of over 5,000 shares in favor of the option. During the meeting, one of the minority stockholders remarking that Mr. Duncan had obtained the best of the bargain, Mr. Duncan replied that when the 'trade was made he was seated on one side of the table and the directors of the land company on the other, and that if he had gotten the best of all these men he thought he was a pretty good sort of a man to build up Sheffield.'

"The information from Sheffield is that it is almost impossible to describe the feeling of renewed hope and confidence which the people there feel over this event, or the extent of the hope it has aroused.

"Among the changes will be the reorganization of the Bank of Commerce, with a capital of \$1,000,000 and \$200,000 fully paid up at the start. Mr. William Chambers, of Sheffield, leaves at once for New York, where he will spend several weeks in the interest of the land company. The new company which takes possession will be capitalized at \$5,000,000 and be known as the "City Land Co." There will also be a "Banking & Trust Co." with \$1,000,000 capital.

"Mr. Duncan has again proved himself a master mind, and has secured assets valued at \$6,000,000 for \$950,000. The outcome will develop immediately, and already the stock has jumped a dozen points. Among the assets are 7,000 city lots, 10,000 acres of mineral land near there, the new Sheffield Hotel, which is built of brick and larger than the Duncan, the Sheffield water works plant and the lighting plant.

"Mr. Duncan spoke freely of the big deal last night. He says Colonel Ensley, who is now in Europe inspecting the production of steel, will certainly build a \$500,000 steel plant there on his return. Colonel Ensley has stated officially that in Sheffield iron can be made more cheaply, taking the river transportation, than at any other point, and that the pig iron made there is of the most superior quality for making steel. 'Colonel Ensley,' says Mr. Duncan, 'has \$500,000 of bonds in the treasury of the Ensley Co., never having used a dollar of them, all of which he is ready, if necessary, to put into a steel plant.'

"It is my candid opinion," said he, 'that in the near future Sheffield will experience such an improvement as has not been seen since Birmingham's great boom.'

"My idea now is," said Mr. Duncan, 'to bring all the talent and moneyed aid I can from a distance and combine it with the local interest there, and work them together to build up a great place, not for the purpose of booming the property and then selling it.'

MIDDLESBOROUGH.

A Special Meeting of the English Shareholders.

Four Million Two Hundred and Fifty Thousand Dollars To Be Used In Further Industries and Developments.

[Special Cor. MANUFACTURERS' RECORD.]

MIDDLESBOROUGH, KY., Oct. 17, 1891.

An informal meeting of the shareholders of the Middlesborough Town Co. was held in London, Eng., on Monday the 12th inst. This event was looked forward to by the people of Middlesborough and vicinity with considerable interest and anxiety, as it was generally understood that it would be decided at this meeting whether the English investors would continue in this development or not, and whether additional capital would come from the other side of the Atlantic to complete the many industries which had already been started in Middlesborough. The result of the meeting was therefore exceedingly gratifying to all those interested in this development, for the glad tidings reached this city on Monday afternoon of the subscription of \$1,250,000 to be expended in further developments in the town. This means that the English shareholders have decided, with an unanimity of voice, their intention to stand by their pet companies in Kentucky, and that the activity of former days is to be renewed at as early a period as possible. It further means that the water works are to be finished at once, with sufficient capacity to supply all the industrial plants with the water required at a reasonable cost; also the immediate erection of the South Boston Iron Works, the Davis charcoal furnaces and the completion of the Overbeck brewery. It further means that a large fund will be kept in reserve to be used in encouraging new plants and furnaces to locate in this valley. It means also a revival of every interest and a resurrection of the old activity, and that many other things will be done so that Middlesborough will soon be able to give her varied products to the world.

As the Middlesborough Town Co. is a Kentucky corporation, the meeting in London was of course unofficial, but the official one will take place in this city on November 12th to ratify the action of the English shareholders. It is only at that time that all the details of the London meeting will become known and that the plans and policy of the company will be defined, and that the changes, if any are to take place, in the local management will be known. Referring to the many rumors of every description which have been telegraphed from all sections of the country in reference to a change in the local management, etc., no credence must be given to them, as there is certainly no foundation of truth to warrant their publication. The correspondent of the Associated Press some weeks ago penned an official despatch stating that upon the urgent request of Mr. A. A. Arthur, general manager of the American Association, Limited, to be relieved of some of the heavy responsibilities of his position, that the London board had paid him the graceful compliment of abolishing the office of general manager and appointing him as the local consulting director of the association. Some two years ago, while coming from Knoxville, Mr. Arthur was severely injured in a railroad wreck, and his health has been impaired somewhat since then. Notwithstanding this fact he has had the burden of the management of the American Association, the Town Co. and the subsidiary companies, without counting the Belt Railroad and the Knoxville, Cumberland Gap & Louisville line, upon his shoulders to bear.

The resignation of the principal officers of the Town Co. and American Association, which were forwarded to London some time ago (before the meeting of the 12th inst.), signify in no way whatever that they will be accepted, or that there was anything sensational in the action. Every one who is acquainted with the details of English investments in the United States and other countries is cognizant of the fact that immediately following the great failure of Baring Bros., some twelve months ago, Englishmen became very cautious and slow in investing any further capital in any of the enterprises or developments in which they were interested. It is also known here that many of the projects they had endorsed and even authorized, after the hard times came upon us, they refused to carry out, or were unable to put them into execution. This fact alone disappointed many of the American investors who were interested in the development of Middlesborough, and naturally reflected somewhat upon the promises made by the local management, who had acted under instructions from their London office. These facts being presented to some of the English directors, naturally led to some disagreement between the two boards, and possibly a little ill feeling was engendered at the time.

To overcome these troubles, to harmonize all factions interested, and above all, so as not to be in the way of the progress and development of the city they had contributed so largely to build, Mr. Arthur and his colleagues unanimously decided to resign in a body, so as to leave the shareholders absolutely free to act at the meeting held on October 12th.

It is not presumed, however, that any material change will take place in the personnel of the present management, but nothing positive will be known on this subject until the meeting of November 12th in this city.

An order was received here the other morning which will bring Middlesborough coal conspicuously before the Louisville public before long. The Mingo Mountain Coal & Coke Co. received an order for 150 tons of Mingo coal per day for one week from the Louisville Gas Co. This is a trial order, and if it comes up to representation as a gas coal it will be used all the time. Experts say that it is the finest gas coal in the country, and it is now being used with great satisfaction by gas companies in Kentucky, Indiana, Tennessee, Georgia and Alabama.

The \$1,250,000 recently subscribed for the Town Co. at a meeting in London is an item of news far more significant than it would appear to the casual observer. This large sum of money is, as stated above, to be used in the completion of the industries here, and for the encouragement of new industries which might wish to come to this section. Now the importance of the completion of these enormous plants will be more thoroughly understood when it becomes known that there are nearly \$1,500,000 now owed to the Town Co. on notes for property purchased, which have never been paid for the reason that the works were not completed, and their completion was part of the contract of sale. Adding this amount to the one recently subscribed in London, we have \$2,750,000 which will soon be at the disposition of the Middlesborough Town Co. alone; now adding again the \$1,500,000 of debenture bonds issued, and which I understand have all been subscribed, for the American Association, there is a grand total of \$4,250,000 to be used by the various companies operating here under the parentage of the American Association, Limited. With this amount Middlesborough should certainly push rapidly to the front and gain such a start that it would be impossible to have her take a backward step again.

O. O. HALL.

THREE THINGS NEEDED.

What Winston-Salem Wants—More Banking Capital, a New Courthouse and the Roanoke & Southern Machine Shops.

[Special Cor. MANUFACTURERS' RECORD.] NORTH CAROLINA HEADQUARTERS OF THE MANUFACTURERS' RECORD, WINSTON-SALEM, N. C., Oct. 19, 1891.

Only a little acquaintance with this thriving manufacturing city is necessary to impress one with the importance of securing three things here, the want of which is now being discussed considerably in business circles. One of them is, more banking capital; another is, a new courthouse, and the other is, the machine shops of the Roanoke & Southern Railroad.

There is a business done here of about \$10,000,000 a year, of which the manufacturers and handlers of tobacco do a large part. There are three banks here with a combined capital of \$500,000. This amount could be doubled to advantage, but local stockholders need their money in their business, and the increase will have to come from outside. The banks here are well established, conservatively managed and pay good dividends, and arrangements could be made, I am certain, to increase the stock of the existing institutions, although if any one preferred to put in a new bank altogether it would be welcomed by even the local bankers themselves. They don't attempt to deny or conceal the fact that they are unable to take care of their customers as they would like to, it being a well-known fact that many of the more important manufacturers here keep a large line of deposits in Baltimore and Philadelphia banks, so as to get needed discounts at times when it is impossible to be accommodated here. While it would be impossible for a new bank to obtain a suitable room at present, there are good chances for profitable building, as good corners and inside property in the heart of the city may be bought for from \$200 to \$300 a front foot, and this in a city of 16,000 people.

The need of a new courthouse is certainly so apparent that no one of ordinary public spirit can fail to work and vote for the proposition to issue \$50,000 of county bonds for the purpose of erecting a new building. A city's enterprise is judged by its public buildings as much as the civilization of a country is shown in its coins, and with Forsyth county free of debt, absolutely, and with a present State, county and school tax amounting to only 6½ cents on the hundred dollars, there can be no valid excuse offered for failure to support the proposition which comes up for decision by the people early in November. The present courthouse is very interesting as a relic, and as showing what Winston-Salem and Forsyth county were many years ago, but as a public building it is a feeble echo of a dead past. And it is not only an eyesore, but is now wholly inadequate to the purposes for which it was built.

Now about the Roanoke & Southern Railroad shops. Everybody who knows the New South knows what the Norfolk & Western shops did in the way of stimulating things at Roanoke. I am reliably informed that Winston-Salem's chances for securing the Roanoke & Southern shops are as good as those of any other city which will compete for them; in fact, that \$100,000 would secure them in all probability. When it is reflected that from 1,000 to 3,000 industrious people would at once be permanently added to the population of the Twin Cities; that the necessary expenditures of those people would in the first month amount to this sum, it may be readily understood why there is strong competition on the part of other cities along the line of this road for this very ad-

vantageous institution. It is proposed to issue city, township or county bonds, or subscribe by private contribution or otherwise, the amount to be paid in instalments, on the location of the shops, on the completion of the line to some point south of Winston-Salem, etc. The more this question is studied the more important it becomes. If Winston-Salem stirs herself she can get these shops. If she doesn't, Roanoke or some other place is going to receive the enormous benefit which will ensue from their location.

A. P.

Items from Newport News, Va.

NEWPORT NEWS, VA., Oct. 19, 1891.

Editor Manufacturers' Record:

It can be said with all probability that the street railway contemplated here will be in operation out to the ship-yard at an early day. Property owners have been interviewed in order to get the right of way, and there now only remains to go to work on the road. Arrangements have been made for securing the rails, which will be on hand before long.

The knitting mill plant of Messrs. McLaughlin, Condon & Co., of Schenectady, N. Y., for the removal of which to Newport News negotiations have been pending, will in all probability soon be added to our industries.

Some Philadelphia parties have just purchased several lots on which three attractive dwellings will be erected. They will probably build an additional number of brick houses before long.

The increase in the freight traffic over the Chesapeake & Ohio Railway to this city the present fall has so exceeded expectations that the company will commence work in a few days on 16 new side tracks to accommodate cars from the West.

Buena Vista (Va.) Notes.

BUENA VISTA, VA., Oct. 16, 1891.

Editor Manufacturers' Record:

It is stated that negotiations have been completed with some New York parties for the sale of the Hotel Buena Vista, which will probably be confirmed at a meeting of the board of directors of the Buena Vista Co. Another building and loan association, the Washington Co. of Hagerstown, Md., has organized a local board here with Buena Vista men as officers.

In the vicinity of Loch Laird a large force of hands are engaged in building the coal chutes, roundhouse and turn-table for the Norfolk & Western Railroad.

Buena Vista's increased business has for some time, in the opinion of its business men, warranted greater facilities in the telegraph service, and a petition was presented to the superintendent of this district of the Western Union Telegraph Co. for a full commercial service and an independent office. The result of this has been the assurance that Buena Vista's needs in this direction have been recognized for some time, and will be supplied as soon as the great amount of additional work placed on the company's forces by the activity in railroad construction throughout the State will permit.

The run of pig iron from the furnace has lately surpassed previous records, averaging for the week ended October 10 over 110 tons every 24 hours. The sales of the product are also keeping pace, shipments for the same time being about 650 tons.

President Barclay, of the Buena Vista Co., has been invited to make a display of our resources at the World's Fair.

VALUABLE PROPERTIES of all descriptions for sale in the growing city of

WINSTON-SALEM, N. C.

5 miles Electric Street Railroad. 112 Factories. Population 1891, 4,194. Population 1890, 16,471. Tobacco Center. Railroad Center. Paved Streets. The Future Metropolis of the South.

F. C. HUMPHREY, Real Estate Agent.

BESSEMER CITY, N. C.

A New Steel-Making City Founded.

One of the Few Places Where There Is Bessemer Ore, Accessible and in Large Quantities—An Important New Enterprise, Backed by Strong Men and Big Money—John H. Inman Takes Stock.

[Special Cor. MANUFACTURERS' RECORD.]

KING'S MOUNTAIN, N. C., Oct. 10, 1891.

Six miles north of this ancient and historic hamlet, on the main line of the Richmond & Danville Railroad, is a station, until recently known as All Healing Springs, so called from the marvellous cures effected by the waters of a nearby spring, one of the thousands for which Western North Carolina has become famous. Some months ago Mr. J. A. Smith, a successful town builder and tobacco manufacturer from Virginia, associated with himself several gentlemen of large means and business ability, bought over 3,000 acres of ground surrounding this whilom health resort and laid comprehensive plans for a new manufacturing and mining town, which shall henceforth be known as Bessemer City.

Mr. Smith had spent a great deal of time in looking for an accessible place where ores suitable for Bessemer steel could be found, and he had acquired a vast fund of information and valuable experience in the search. His attention was drawn to this region of Southwestern North Carolina, where ores had been mined for generations in a crude sort of way, and where an old furnace, at which were made cannon balls and even heavy ordnance for the use of the American heroes of 1776, had, after a long and useful era, gone out of blast as long ago as 1792. Careful investigation showed that here were several veins of phenomenally high-grade iron ore, of practically unlimited supply, and after securing the cream of the property, it was the work of but a short time to secure the co-operation of some of the best and most practical men of the country. A company was organized with Mr. Edwin Mickley, of the important Thomas Iron Co., as president; Mr. J. S. Carr, the wealthy and sagacious manager of the Blackwell Durham Bull smoking-tobacco factory, as vice-president, and such other successful business men as Mr. J. A. Carroll, banker and cotton manufacturer, of Gaffney City, S. C.; Dr. B. F. Dixon, president of the Greensboro (N. C.) Female College; W. D. Rice, capitalist, of Richmond, Va., and J. A. Pinchback, an operator in mineral lands and other real estate, recently removed to North Carolina from Virginia.

Mr. Mickley probably knows as much about iron and steel as anybody in the South, and he was, if possible, even more enthusiastic about the situation than any of his colleagues. All were thoroughly imbued with a spirit of enthusiasm, however, and they immediately began the development of the property on a broad-gauged, liberal and yet thoroughly substantial basis.

A portion of the property containing 1,778 acres, through the center of which runs the Atlanta & Charlotte division of the Richmond & Danville Railroad, was set apart for town-site purposes, and the work of laying out streets, building company's stores, etc., was begun. A depot and sidings were secured, and the government has established a postoffice, which will be opened for business as Bessemer City, November 1 prox.; meantime, the most active development of the mining properties was begun, shafts were sunk at numerous places on the ore veins, the best machinery was put in, and the company now has 10 mines of fine Bessemer ores,

and is shipping the ore to Northern furnaces at a good profit. The ores average over 60 per cent. metallic iron, with less than 5 per cent. phosphorus, and free from sulphur, copper, titania and arsenic. One of the veins is that rare occurrence in iron deposits, a true fissure vein, running a length of four miles on the company's property, and is 14 feet wide at its narrowest point. It is computed that this mine alone, which is now in operation, will yield ore which can be sold to other furnaces in quantities sufficient to pay a handsome dividend on the entire capital stock of the company. The company will mine from 50 to 100 tons of ore daily, and will double this as soon as more machinery can be put down.

It is the company's intention to get all its mines opened up as speedily as possible, and then erect on the property a large furnace and steel plant, using the latest improved methods for making steel by the direct process.

Besides the iron mines there are on the company's property an apparently inexhaustible quantity of gold bearing quartz, which has already been worked with profit in many places; a vast deposit of glass sand, declared by experts to be as fine as any known; a mountain of whistone rock, and unlimited supplies of the finest kind of granite rock, while adjoining the property is a fine limestone quarry and nearby a large deposit of most excellent fire clay. Although no especial commercial importance is attached to the fact, it is of historical interest that evidences are found of an ancient silver mine, collateral testimony being to the effect that it was worked by Mexicans from 150 to 200 years ago.

The company is now ready to offer lots and stock for sale, and it is declared by many that the company's scheme is the most attractive ever offered to the public. The plan of operation is this: The capital stock of the company is only \$650,000. The price paid for the entire holdings—mines, town lots and everything—is \$325,000, and the stock is rated at 50 cents on the dollar. The original owners get half the stock and \$162,500 in cash when the remaining \$325,000 of stock shall have been sold at 50 cents on the dollar. But the original owners agree to invest the entire cash proceeds in various industries, the stock being retained for this purpose in the treasury of the company, and the proceeds from its sale being invested in the names of the original owners in such industries as the management may deem most desirable. Purchasers of this stock (which is to be declared fully paid and non assessable when 50 cents on the dollar shall have been paid in) will be given one lot in the company's town-site for every share of stock, the lots to be drawn alternately out of every block in the company's property, the company believing that by this plan a more rapid development of the town-site property will be secured, and that with such development the value of the remaining property will be more than doubled.

Under this plan the company proposes to take half the capital stock of a bank, a cotton factory and such other factories as will bring the greatest number of skilled laborers and mechanics who can pay a good rent for good houses or own their own homes. So that with \$162,500 cash, the company will secure industries costing \$325,000, and this amount of cash, invested by outsiders in industries on the company's property, will, in addition to large mining operations of the company, make the lots and stock very valuable property.

A powerful aid to the company, not only as an indorsement, but as a material assistance, is the fact that Mr. John H. Inman, of New York, president of the Richmond & Danville Railroad, has entered into a contract to take 20 per cent. of the capital stock of any and all manufacturing en-

terprises, including a furnace and steel plant, which shall be established on the company's property within three years.

Fortunately for the company, stockholders in which, as a rule, are averse to making investments in hotel property, however much the necessity for such a convenience exists, arrangements have been perfected with an independent company to erect a splendid hotel on an elevated site, from which most picturesque views can be had of the mountain ranges of three or four States, and a portion of this hotel will be completed before Christmas. This section of the South is becoming more famous every day for its healthfulness and desirability as an all-year resort, and it is expected that the hotel, when completed, will attract visitors by the hundred from the North in winter and the South in summer.

A visit to this company's property at this time reveals a degree of activity and bustle which leaves no room for doubt as to the intentions of the management, and I am informed that more than a quarter of a million dollars has already been expended on the property. The work of mining the iron ores is going on independently of any efforts in behalf of a town-site, and while the management seeks to secure a fair remuneration on every feature of the development there, its success is in no wise dependent on the sale of town lots. As a mining enterprise it will be worked legitimately and profitably, but at the same time it is seen that the development of an important trading and industrial center will yield large returns from the sale of town lots, and incidentally, of course, make real estate operations there by outsiders a very profitable investment. The company's pay-roll now amounts to \$500 to \$1,000 a week, a nucleus of itself for a good trading point, and it is the intention of the company to foster the steady and substantial upbuilding of a trading and industrial center by all means in their power.

Mr. J. A. Smith is secretary and treasurer of the company, and to him requests for more detailed information may be sent. Until November 1 his address will be King's Mountain, N. C. After that time, Bessemer City, N. C.

ALBERT PHENIX.

Want to Buy American Furniture.

WINCHESTER, TENN., October 10, 1891.

Editor Manufacturers' Record:

While travelling in England some months past I became acquainted with two wholesale dealers in furniture, and they expressed a desire to handle American furniture. Both parties pressed me hard, and got me to consent to help them open up a trade with manufacturers of cheap grades of American furniture. One of them, if he could make satisfactory prices, would take as a sample order from \$10,000 to \$15,000 worth. He wanted as a sample order 10,000 dozen knife-scouring boards; that is an article not much used here as it is there. Nearly every family there uses a scouring-board. It is 28 inches long by 5 inches wide, nicely rounded at one end and square at the other end, and about five-eighths of an inch thick. American brooms and washboards would also sell well in that country. There is a grand opening for Southern manufacturers. I know that I can secure a large cash trade for some manufacturers, and would be glad to correspond with furniture men in regard to this subject.

J. L. GIRTON.

THE city council of Aiken, S. C., has employed Mr. John C. Chase, a well-known hydraulic and sanitary engineer of Wilmington, N. C., to make estimates of the cost of introducing water into that city, and to ascertain whether there is a sufficient available supply in sight.

World's Fair Notes.

Pennsylvania's exposition building will cost \$75,000.

The Florida Horticultural Society has asked for three acres in which to show an orange grove and make a fruit display.

Indiana will have a \$100,000 building at the fair. It will not cost that much, however, as a large share of the material, all of which will come from that State, will be donated.

The Illinois World's Fair Commissioners have provided for the preparation of a number of topographical maps of the State for exhibition at the exposition. One will show in detail the railroads, with their grades and elevation above both Lake Michigan and the ocean. Another will show the river courses, valleys, elevations and extensive prairies, illustrating the resources of the State for agricultural purposes. A map is being prepared showing the location of every schoolhouse and all of the State institutions of various descriptions.

South Dakota is now engaged in raising \$80,000 for its representation at the exposition. It proposes to erect a building 144 feet square.

October 30 will be "World's Fair Day" at the Texas State Fair at Dallas. On that day everyone who owns stock in the Texas World's Fair Association will be admitted free to the fair, and the association will try to have every visitor buy some of the stock. Texas is trying to raise a World's Fair fund of \$300,000, and has already made most encouraging progress. One hundred and sixty-seven counties in Texas have organized for World's Fair work by choosing committees, &c.

The lumbermen of the Puget sound region were called to meet at Tacoma on October 6, to consider the question of furnishing material for the Washington State building at Chicago, and to plan for an extensive and complete lumber exhibit. The executive committee of the Washington World's Fair Commission was called to meet at the same time.

Space for the exhibits of Great Britain, Germany and Denmark in six of the main exposition buildings have been granted as follows:

Buildings.	Great Britain.	Germany.	Denmark.
Manufactures.....	120,000	100,000	12,000
Machinery.....	40,000	40,000
Electricity.....	20,000	20,000
Fine Arts.....	20,000	20,000	6,000
Mines.....	25,000	10,000
Agriculture.....	20,000	15,000	2,000

In addition to the above, Denmark is given 13,500 square feet for a dairy building; Germany 250 by 750 feet on Midway Plaisance for a German village, and considerable space will be held open in the Horticultural, Fisheries and Transportation buildings until the commissions shall have decided whether or not they will make exhibits in those lines. Additional space aggregating 20,000 in the Agricultural building will be set apart for an exhibition of wines, beer, etc., if England and Germany decide to make one.

It is probable that Chicago will have a tower 1,120 feet high, which, in every respect, will far surpass the Eiffel Tower of Paris. The Keystone Bridge Co., of Pittsburgh, Pa., has made an offer to furnish the iron work, which, it is claimed, has been accepted by the promoters of the tower company. The following particulars about the tower have been made public: The actual cost will be about \$1,500,000. The cost of the Eiffel Tower was a little less than \$1,700,000. The difference is in the greater simplicity of design of the American tower and the use of standard and merchantable sizes of steel. The three landings will be circular platforms; the first 250 feet in diameter and 200 feet from the ground; the second will be 150 feet in diameter and 400 feet from the ground, and the upper landing, more properly called the "lantern," will be 60 feet in diameter

and 1,000 feet above the ground. At the first landing there will be a grand colonnade around the outside 15 feet wide and 738 feet mean circumference. On this colonnade 4,000 or 5,000 people can be accommodated at one time. Inside of this colonnade will be space, in addition to the space required for elevators and machinery, sufficient to build four hotels or restaurants. In addition to the restaurants there will be provided numerous kiosks or booths, constructed in accordance with the architecture, styles and customs of various countries, which will be used for the sale of curios, ornaments, fabrics and other articles produced and manufactured in all lands. Within the restaurants 6,000 or 8,000 guests may be comfortably seated and served at one time. Within and without the booths and surrounding platforms 3,000 more people will have room to move about, make purchases, etc. The second landing is designed as a grand promenade and picnic quarters in the daytime, and as a dancing hall in the evening. It will accommodate at one time 5,000 to 6,000. The upper landing is to be finished as the grand lookout, will be two or three stories high, and accommodate at one time 1,200 to 1,500. Above this will be four offices for signal service and scientific investigations. Above this will be the circular electric railway, carrying electric lights at night and signals by day. Above this is the lighthouse, to be provided with the most powerful revolving light ever constructed, surmounted by the flagstaff and the stars and stripes. Over 25,000 people will be accommodated in the tower at one time, and two of the many elevators are to start from the ground and run more than 1,000 feet up, without change or stop, directly to the lookout landing. The width of the tower at the foundation level is 440 feet in each direction.

Progress at Front Royal.

FRONT ROYAL, VA., Oct. 19, 1891.

Editor *Manufacturers' Record*:

Should the skeptic on town building and industrial development look in upon an established and prosperous population of 2,500, located in the Shenandoah valley where the Shenandoah Valley Railroad meets at grade the Richmond & Danville, the evidence would be of the most convincing character that progress is Front Royal's watchword, and growth and prosperity its certain future.

The steam brick works, one of the recently acquired industries, was entirely destroyed by fire a few days ago, entailing a loss of \$3,000 in excess of insurance, but arrangements are now pending for a larger and better equipped brick plant.

The G. W. Shank Manufacturing Co. is vigorously at work upon its factory building, and as rapidly as practicable the machinery will be placed in position.

The Front Royal Furniture Co.'s large factory is also nearing completion, and in a few weeks busy artisans will be turning out household goods.

The Royal Water Co., previously reported as incorporated with a capital of \$50,000, has awarded a contract to the Glamorgan Co., of Lynchburg, for the furnishing of all pipe used in the construction of the system of water works. To D. G. Addelsberger, of Baltimore, was let the work of pipe laying, and to W. R. Gearling the building of Mountain Lake reservoir. The plans as approved will insure an abundant water supply sufficient for a large population and a reserve for manufacturing uses, with a pressure for protection in case of fire.

Residences are being erected, and as soon as completed are being occupied. No vacant houses are to be found here.

W. J. POWELL, of Quitman, Ga., wants a novelty peanut roaster.

Wanted—A Good Business Location or a Wife.

The MANUFACTURERS' RECORD is called upon nearly every day to furnish information about the South, the questions often covering a wide range of subjects, but it has never until this week been asked to render assistance in securing a Southern wife for any of its Northern readers. We are now requested to do that, as will be seen from the following letter, which we publish just as received, taking it for granted that it is written in good faith:

NEW YORK, October 19, 1891.

Gentlemen

Can you or any of your numerous subscribers please inform me which is the best live Business City or town in the South for a man to go to with a few thousand dollars. None of these mushroom towns or enterprising Cos need answer this. What I wish is a good solid live Business Centre where I would be sure to do well in the Dry goods line or I would like to form the acquaintance of a Southern Roman Catholic Business lady with a view to matrimony—please put these few lines in your paper and much oblige

WM PARNELL

109 fourth Av

New York

Location for an Ice Factory Wanted.

The MANUFACTURERS' RECORD is requested to announce that a good location for an ice factory to make 20 to 25 tons of ice a day is wanted in the South. Information as to the advantages for such an enterprise and the need for it in Southern towns is requested. Address N. P. B., Room B, Palace Hotel, Cincinnati, Ohio.

A NEW process for producing sugar from sorghum juice has been discovered, the merits of which are being tested by the experts of the National Department of Agriculture. Thus far it has been found that about 200 pounds of sugar can be obtained by this process from a ton of cane, and that the peculiar sorghum flavor, to which many object, is entirely removed from it. These results are obtained by treating the syrup with alcohol, the latter being recovered by distillation when the process is complete without material loss. In the use of five barrels of alcohol in one experiment all but about a quart of alcohol was recovered. This sugar is nearly white and is strong, to the extent of 90 degrees, in saccharine qualities. The aggregate sorghum molasses product of the South amounted at one time to several million gallons, and the acreage of this annual cane crop is still large, but should the experiments in progress prove that sugar of high grade can be made from sorghum at a profit in these days of low prices, an impetus will be given to the cultivation of sorghum cane, and another industry will be added to the many new ones that are diversifying the manufactures of the South.

THE Boston Traveller of October 19 says: "The hearing on the test case against the Cardiff (Tenn.) Coal & Iron Co. to determine the rights of land owners and others who put money into Cardiff to estop further payments on notes due and to recover the money already put in, is 'booked' for this week before the United States Court at Washington. If the case is decided in favor of the petitioners, as eminent counsel believes that it will be, the directors will undoubtedly be held personally liable, if need be, for all the funds invested. Hundreds of people throughout New England are awaiting the decision with a deal of interest." Cardiff was started by New England people, and most of the sales of lots were to New England and Western buyers.

RUTHERFORDTON, N. C.

Fresh Start of a Solid Old Town—Not a Business Failure Since 1883.

It is seldom that a place once acquiring the cognomen of "a finished town" awakes, akes on new life and goes forward with bound to a position among the progressive towns of the State. This, however, has been the history of Rutherfordton, a delightfully situated town among the Piedmont foothills in Western North Carolina.

The town of Rutherfordton was located in the year 1786. Previous to that time all public business was conducted at Gilberttown, three miles from the present site. In the "good old days befoh the wah" Rutherfordton was quite prominent among the villages of the State, being noted for the wealth, society and hospitality of its inhabitants. The chief element of its population consisted of wealthy landholders, owning large numbers of slaves, and merchants who controlled a trade embracing the vast amount of territory geographically tributary to Rutherfordton, but in late years, until recently, cut off by railroads. With the close of the war all was swept away save the good society and natural generosity of the people. Many representatives of old families are still there, and dispense the old time hospitality of their ancestors, making the stranger within their gates welcome, their only charge being that they come again.

But a change has come about in matters of progress. Five years ago the nearest railroad station was 28 miles distant. To-day there are two (2) trunk lines of railroad, viz., the Carolina Central Railroad, from Wilmington on the coast, terminating at Rutherfordton, and the Charleston, Cincinnati & Chicago Railroad, completed from Charleston, S. C., at tidewater to Marion and to be extended through rich fields of coal, iron and other minerals to the West.

Within the past year many new dwelling have been erected, and all are occupied. There is but one vacant house in town, and that is so simply because the owner declines to rent. Many new houses are in process of construction. A new hotel has been built; also a successful boys' military institute.

The business men are of the solid, conservative sort. There has not been a mercantile failure here since 1883.

The climate of Rutherfordton is the finest that can be found; Northern people come here in winter; Southern people resort to this place in summer. For pulmonary diseases this air is a healing balm. Sufferers from consumption have always found relief within the charmed "horse-shoe range" of mountains by which Rutherford county is surrounded; in fact, many afflicted by this dread disease, by a residence of a few years in Rutherfordton. Mineral springs of various kinds abound within the town limits.

Lately the following have been in successful operation: A building and loan association, a canning factory, two planing mills, door, sash and blind factory, small shoe factory, wagon rim and spoke factory, and many small mills on the water-powers near the town; also, there is soon to be erected a large tannery and leather factory to employ 50 hands.

An enterprise just organized bids fair to develop Rutherfordton's resources fully and rapidly. The Gleghorn Land & Manufacturing Co., J. Mathews, secretary and general manager, whose object is to buy and sell property, build on and otherwise improve the same, to encourage, foster and establish manufactories, has been organized and begun operations in Rutherfordton. They have secured by option and purchase over 1,000 acres of land in and adjoining the corporate limits of Rutherfordton. Land has increased in value from 100 to 400 per cent. since the organization of this company.

Improved Coke-Making Processes.

PHILADELPHIA, PA., Oct. 15, 1891.

Editor *Manufacturers' Record*:

Although it appears to us like carrying owls into Athens to speak just now of the outlook of most any line of business, at a time when the daily market reports of the whole country bear the most emphatic language of anticipated prosperity, we will say that we firmly believe not only in one but a series of years that will shine in the history of the country forever as exceedingly happy and successful.

We have positive information of remarkably large capital going South and Westward, and in both directions new fields of enterprise will shortly be developed in large number. New blast furnaces will spring up, and the manufacture of steel in the South, augured in the recent past with such promising success, will make rapid advances.

But outside of the establishment of entirely new industries we see improvements coming in old established ones, which will vastly benefit the country, and particularly the South and West again. These improvements relate to one of the most important industries—to the manufacture of coke.

Thanks to the energy and perseverance of our European, and particularly German, colleagues, the washing of coal has been brought to such perfection that even the dirtiest kind of waste coal can this day be successfully cleaned to such an extent that it will yield a coke which, in regard to uniformity, lowness of ash and the obnoxious sulphur, will rival and excel the famous Connellsville or the English Durham coke. The capacity of the Southern blast furnaces will be considerably increased and come near to that of equal-sized Northern furnaces, their general working will be more economical and easier controllable, and the quality of the pig iron will be much improved.

We have the strongest assurance that in quite a number of localities South and West the most improved process of coal washing will be introduced, and before very long the iron masters of Alabama, Tennessee and other States will wonder how such an improvement, of whose urgent necessity every intelligent man has long been convinced, could ever have been retarded so long.

Important as the effect would be for the reasons named, a successful coal washing will gain even more significance if we take into consideration that through it a large number of entirely new coal regions are opened to the coking industry. Coal, though full of slate, scale, pyrites, &c., but otherwise of good coking qualities, is spread almost over the entire country, and we see the day not so far off when it will sound almost like a fable that to-day coke is being shipped from Pennsylvania to Colorado.

But one more equally radical change will be initiated in the very near future—the introduction of the "Belgian" retort oven system to take the place of the present beehive system, which in every other respect but initial cost is wasteful and expensive, and which sacrifices without returns about 10 per cent. of valuable carbon. The retort ovens are bound to come, and furthermore, instead of directly burning the gases without further use beyond heating the retorts, the gases will before long be freed of tar and ammonia and other valuable constituents before they are led back and burnt around the retorts to produce the heat necessary for the coking process.

The enormity of such improvements is apparent. Taking the present production of coke at 2,000,000 tons annually, we can obtain the following direct gain of valuable products:

2,000,000 tons coke (additional) at \$11.50	\$23,000,000
1,500,000 tons sulphate ammonia at \$20 per ton	30,000,000
800,000 tons crude tar at \$12 per ton	9,600,000
Total	\$62,600,000

In reasonable economy there is wealth, and such economy in connection with a

sound policy will soon enable us to supply the wants of the entire American continent as far as all products of the iron and steel industry are concerned.

STEIN & SCHWARZ.

Tin Mining in the Straits Settlements.

In a recent report Consul Wildman, of Singapore, says that the passage of the new tariff law, which places a duty on tinplate, has had a beneficial effect on the tin mines at the Malay peninsula, for the reason that it increased the demand for pig tin in the United States. Formerly tin that was destined for tinplate to be used in the United States, was shipped to different parts of the United Kingdom, where, after being manufactured into tinplate, it was exported to the United States. With the duty on tinplate this industry has become less profitable to the English manufacturer, and in consequence thereof the export of pig tin direct has in a great measure taken its place. In other words, Consul Wildman says pig tin is now going direct to the United States instead of by way of Great Britain. He further states the mining of tin for export is one of the chief industries being carried on in the native state of Berak, north of Singapore, where the mining is done almost entirely by the Chinese. The mining is that of flood tin, not rock, and this means that it is taken from the lowlands near the water, some 10 or 20 feet below the surface, where it is found coarse and black. In order to get at the tin there must be a great upheaval of soil and large pipes of water leading from the pits. As a rule the washing and smelting furnaces are of the most primitive and simple, yet ingenious character. The tools used by the natives are very poor and simple, consisting of a common hoe and a small flat basket. The work is very slow and tedious. The washing of the tin is done much in the same manner as early American miners washed for gold dust. The ore is found in large quantities in a whitish clay, which is washed in long open troughs. The English and German companies now engaged in tin mining do not take the trouble to smelt the ore at the mines, but ship the same to Singapore, where large smelteries have been erected.

Consul Wildman says it is difficult to correctly estimate the value of tin from the Straits settlements that finds its way to the United States. However, he says, the tin that went direct to the United States for the quarter ending September 30, 1890, amounted to \$1,157,323, against \$4,921,346 carried to the rest of the world, and for the quarter ending December 31, 1890, amounted to \$1,217,930, an increase of \$60,607 over the preceding quarter, against \$5,620,008 carried to the rest of the world, of which \$2,306,921 went to the United Kingdom. About one-tenth of the tin carried between Singapore and the United States is done in American bottoms. There is no American capital engaged in the production or export of tin, although the United States is such a heavy buyer. In the judgment of Consul Wildman, if an American house were to be established in Singapore it would not only control all the shipping of tin to the United States, but the shipment of nearly all the \$11,000,000 of exports from the Straits settlements to the United States.—Stoves and Hardware Reporter.

In the discussion of the tinplate business the fact is very generally overlooked that Great Britain imports about one-half of its pig tin, and that America is just as well able to do this as is that country. Moreover, the percentage of tin in the best tinplate is very small.

TO SOUTHERN corporations, bankers and brokers: The MANUFACTURERS' RECORD will give investment offerings four insertions free, announcements not to exceed one inch in space.

A PROSPEROUS SOUTH CAROLINA TOWN.

Florence and Its Many New Industrial Enterprises.

FLORENCE, S. C., Oct. 3, 1891.

Editor *Manufacturers' Record*:

It is a long time since Florence has had much of a notice in your columns, but still I cannot say that it is the MANUFACTURERS' RECORD's fault, neither can I lay it to lack of interest upon the part of Florentines; the fact is, everybody in Florence has been too busy to stop to write about the immense strides this section is taking.

Most of your readers know that no town in the South has been going ahead faster than this, but recently there has been inaugurated a movement here of such magnitude that it cannot be passed silently, as the inauguration of so many of our new industries have. I speak of the opening of our tobacco warehouse, where on the first day of October the first sale of tobacco ever made from a warehouse in the State took place. Florence therefore has the proud distinction of not only commencing the cultivation of the weed and of fostering it until the industry has now become a giant in strength, but of erecting the first warehouse and selling the first tobacco at public sale within the borders of the Palmetto State. The man to whom the great credit of this success is due is Mr. F. M. Rogers, Jr., who may be justly called the father of the tobacco interest of our State. To one not acquainted with the tobacco business the opening of a warehouse here may not mean as much as to one who understands its import. It means that the planting of tobacco by our farmers will be probably four times greater next year than it was this; entirely owing to the fact that a home market can be had. Heretofore enough must be raised to make it possible to ship to distant points. This was a great trouble and expense, and deterred many from engaging in it. Now a small patch can be raised, and, as in the Old North State, a few pounds can be brought in and sold at a time for pin money, or to raise a little cash for an emergency. Tobacco is as staple as cotton, and, like that staple, is a cash crop—one which commands ready money at any and all times.

The first three days' sales have amounted to several thousands of dollars, all of which has been brought from elsewhere and left in the hands of our farmers, who in turn are enabled to meet their obligations to the merchants, and in many cases the money received for tobacco is just that amount more than would have been obtained had the planters depended wholly upon cotton, as in former days. The class of buyers who are here are the best, and prices realized are higher than those received at old markets. After the first day's sale a banquet was given in honor of the buyers and visitors, and was a great success.

Speaking of this banquet brings to my mind the fact that we have a new hotel here (where the banquet was held). Mr. John Barringer, whose old "Central Hotel" was destroyed by fire last spring, has erected a fine new one at a cost of about \$30,000. It is a three-story brick, with all the latest appliances, electric call bells, speaking tubes, etc., etc. The woodwork was done by the Manufacturing Co., of Florence, the new planing mill and sash, door and blind factory which began business here last spring. Since I wrote you last we have had an electric-light plant established, and it is now, and has been for some time, under full headway. In connection with the light plant is also a \$10,000 ice plant. Both of these institutions are under the management of the president, Mr. Jerome P. Chase, of whom much has been said in your columns, and who is our present mayor. An artesian

well is being bored, and it is hoped that the water will soon flow in sufficient quantities to supply all demands. A machine shop and iron works have been started recently and are doing a good business, having rented a stand temporarily until their fine new two-story brick structure is completed.

The oil mill has put in a large new engine and boiler and a fine ginning plant, and Messrs. Jarrot & Kershaw have also erected a new gin; both are busy. C. E. Jarrot's grist mill is also well patronized. The Bank of the Carolinas, which opened on the 2d of January, is succeeding beyond the most sanguine hopes of its projectors, and it has already three successful branches located at Conway, Kingstree and Varnville.

Looking back over the space of less than two years since I came to Florence, it seems almost as though the change had been due to the "slave of the lamp;" that Aladdin had been here, and the stirring up and the great progress of the place had been caused by applying friction to that wonderful lamp of his, but it is not so; only a little energy infused; only an opening of the eyes to see a little farther into the future; only an awakening to a sense of the opportunities which presented themselves, and, presto, all is life and activity, and the town has become a city, the quiet has been changed to the busy hum of industry, and the great cry now is for skilled labor, of which enough cannot be obtained.

This is no "boom town." It is a place of 5,000 inhabitants, with numerous factories and many more constantly crowding in; a place where good building lots are now selling at from \$100 to \$200, which in a year will be worth double or treble that sum. Fancy lots can be bought, but the mechanic or laborer can get property at his own price on long time and easy terms, and a house built in any style he desires.

For the benefit of your readers, that they may not think I am fabricating, I will enumerate a few of the many things which have been commenced here in the space of two years: The cottonseed-oil mill, capital \$30,000; the tobacco factory, capital \$27,000; the Carolina Real Estate & Investment Co., \$100,000; the electric light plant and ice factory, \$30,000; the Florence Land & Investment Co., \$75,000; Bank of the Carolinas, with an authorized capital of \$500,000, of which \$50,000 is already paid in and the remainder being rapidly subscribed; the sash, door and blind factory, \$20,000; Dixie Steam Laundry, whose new building and plant are worth about \$6,000; the Florence Iron Works, \$10,000; Kellough Music Co., \$10,000; tobacco warehouse company, \$5,000; C. E. Jarrot's grist mill, \$2,000; Jarrot & Kershaw's gin, \$1,500; brick works, \$2,000—a grand total of nearly \$370,000. These are only such as employ labor and help build up the town. Hundreds of houses and stores have been built, among them the elegant \$30,000 hotel spoken of before, the fine store of John Barringer, the beautiful Episcopal church, the mill and laundry buildings, the elegant courthouse, etc.

How people can be so insane as to strive after the terrors of Oklahoma, when the "Sunny South" presents so many attractions, is more than I can understand.

JOHN P. COFFIN.

THREE cash prizes of \$150, \$100 and \$50, respectively, have been offered by Public Opinion, the eclectic weekly of Washington and New York, for the best three essays of not more than 3,000 words on the question, "What, if any, changes in existing plans are necessary to secure an equitable distribution of the burden of taxation for the support of national, State and municipal governments?" These prize essay contests on current questions, as conducted by Public Opinion, have attracted general attention. The present contest closes December 10.

NORFOLK, VA.

THE GREAT SOUTHERN SEAPORT.

Attention of manufacturers and others seeking investment or establishment in the South is called to the following facts:

Norfolk has the most magnificent natural harbor of the Atlantic Coast, having no bar to block its entrance, being within 25 miles of the ocean, sheltered from all vicissitudes of weather, always free from ice, with sufficient depth of water for the deepest draft vessels.

Hampton Roads, at the confluence of the James and Elizabeth rivers with the Chesapeake bay, is easy of access, navigable for vessels of any size or draft.

It has been designated by Congress as the rendezvous for the navies of the world in 1892-'93.

A 26-foot channel, well marked with buoys and light houses, leads to the wharves of Norfolk, and above the city to the Navy-yard.

Seven broad-gauge and two narrow-gauge railroads, controlling an aggregate of over 17,000 miles, put Norfolk in connection with all the points reached by railroads in this country, and two

The water supply is derived from large lakes of spring water seven miles distant, good not only for household use, but admirably adapted for manufacturing purposes, being absolutely free from all those substances that corrode boilers.

The climate, tempered by the proximity of the Gulf Stream, is mild. There is hardly ever ice or snow to interfere with out-door work or exercise.

The city is lighted with electric lights, and has as fine a fire and police department as any in the country.

All denominations are well represented in churches.

There are two good hospitals, one in charge of the Sisters of Charity, and the other under the Protestant organization of the city.

Educational advantages are excellent, there being a thorough system of public schools, together with numerous private seminaries for both sexes.

There are two good theatres, at which the best companies stop on their pilgrimages from the North to the South.

This is one of the largest pine lumber markets in the South; 350,000,000 feet were shipped in 1890.

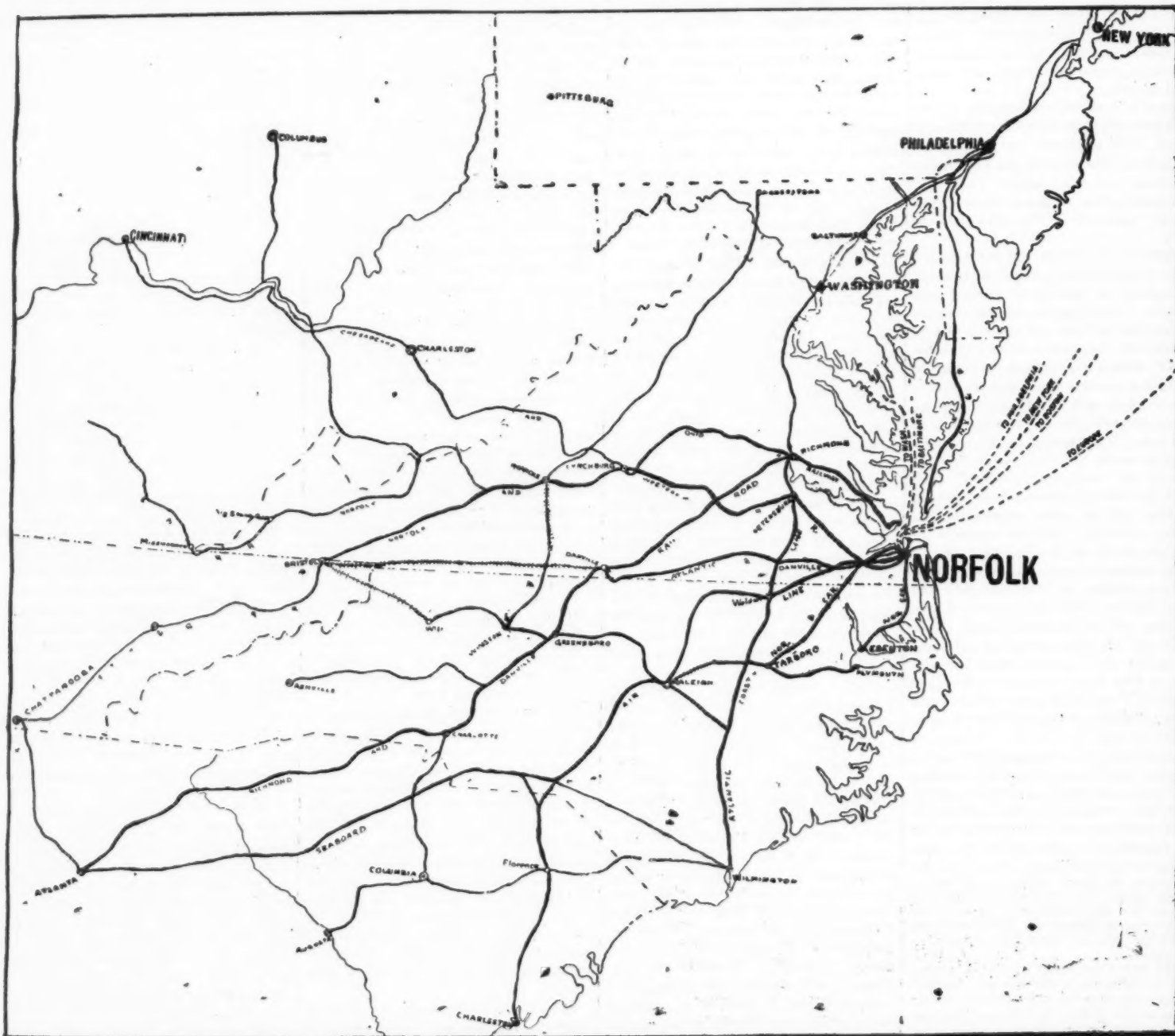
The best bituminous coal and coke are supplied by the C. & O. R. R. and N. & W. R. R.

Pig iron is delivered here by these two railroads.

Roller iron and all of its products can be promptly and cheaply freighted by water to all of the leading seaports.

600,000 bales of cotton are annually marketed here, which makes this the most desirable point for the manufacture of cotton goods in the United States, superior to inland towns throughout the cotton belt, because a factory located in these is dependent on the local product marketed in three or four months, after which it has to draw from distant points or carry a sufficient stock for the year, or if the quality or grade in the locality is unsuitable, it is subjected to the expense of freight from distant points; but Norfolk being a large cotton market, not only furnishes an assortment of grades and quality, but enables the manufacturer to purchase his stock all the year.

It is superior to other seaports from its accessibility to New York, Boston and other markets or such supplies as the manufacturer frequently needs on short notice, while its railroad lines to the interior distribute goods to all points.



canals connect with the Sounds through the Carolinas.

First-class steamship lines ply to Boston, Providence, New York, Philadelphia, Baltimore, Washington, Richmond and other points on the Coast and Sounds.

Norfolk is within 20 hours of Boston by rail and 40 by water.

12 hours of New York by rail and 21 by water.

10 hours of Philadelphia by rail and 18 by water.

8 hours of Baltimore by rail and 12 by water.

7 hours of Washington by rail and 12 by water.

2½ hours of Richmond by rail.

23 hours of Cincinnati, and 34 hours of Chicago and St. Louis by rail.

A regular line of passenger and freight steamships ply to the Brazilian ports, and steamships, chartered mostly for the carriage of freight, ply to Liverpool and other European ports.

In 1883 the aggregate trade of Norfolk was placed at \$38,200,436, while five years later, in 1888, it had risen to \$65,011,856; in 1889 it increased to \$75,000,000, and in 1890 to \$100,000,000. The vessel tonnage of Norfolk in 1870 was 13,502 tons, cargoes valued at \$286,594; in 1880 it increased to 103,608 tons, valued at \$11,116,595; in 1887, 257,884 tons, valued at \$14,714,404; for the year 1890 the tonnage reached 582,846, valued at \$15,197,095.

It will be hard to find a parallel case in this country in two decades showing an increase of tonnage from 13,502 tons in 1870, valued at \$286,594, to 582,846 tons in 1890, valued at \$15,197,095.

The population of Norfolk, including Portsmouth, Berkley and other suburbs, is 70,000; the increase within the city limits has been 61 per cent. in the last ten years.

This increase, with the growth of business and enhancement of value in property of all kinds, is turning the attention of capitalists and investors to this point.

The City of Norfolk has a complete system of sewerage and is well paved.

The healthfulness of the climate, as exhibited by the death rate, is not surpassed by any city in the country, the percentage being in 1890 16.90 to the 1,000.

In addition to the manufacture of cotton and iron, there is at Norfolk opportunity for profitable manufacture of furniture and all articles made of wood, such as ash, oak, pine, poplar, cedar, cypress, juniper, gum, and for the manufacture of safes, stoves, hardware, sash, door and blinds, etc.

The cost of labor ranges from \$1 to \$1.50 per day for unskilled men, and \$2 to \$3 for skilled men; females 50 cents to 75 cents a day unskilled, and 75 cents to \$2 a day for skilled; boys 33 cents to \$1 per day; girls 25 cents to \$1.25 per day.

The above quotations are for white labor.

Unskilled negro labor can be employed at 80 cents to \$1 for men and 50 cents for women.

Norfolk is free from those labor troubles and strikes which have characterized Northern manufacturing cities.

The surrounding country being the great vegetable-growing section of the seaboard, and the rivers and bays being filled with the finest fish and oysters, make living cheap and healthy.

Although in banking facilities Norfolk is fairly well supplied, there being nine banks with an aggregate capital of about \$1,600,000 and aggregate deposits of about \$5,000,000, there is, however, a good opening for another bank.

Norfolk offers a field for the establishment of jobbing houses in dry goods, boots, shoes, hats, caps, notions, drugs, tinware and all other kinds, excepting wholesale groceries, in which she is well supplied.

The country lying to the southward west of Norfolk furnishes the markets to which goods from here are distributed in exchange for cotton, corn, wheat, peanuts and other crops.

The NORFOLK INDUSTRIAL DEVELOPMENT CO. has been organized for the purpose of furnishing information and assisting the establishment of manufacturing enterprises.

Free sites can be obtained on the railroad lines around the city, and reasonable subscriptions will be made to the stock of manufacturing enterprises, provided they are meritorious, but no proposition will be entertained from any but bona fide concerns, using good machinery and stocked on a business-like basis.

Capital invested in machinery is exempted from taxation for ten years, and will probably always continue so.

For further particulars, address

WALTER F. IRVINE,

SECRETARY NORFOLK INDUSTRIAL DEVELOPMENT CO.

LAWRENCEBURG, TENN.

A Coming Residence and Industrial City, Educational Center and Health Resort.

Small Industries Wanted to Work Up Our Cheap and Splendid
TIMBERS AND PIG IRON.

No place like it for
FURNITURE FACTORIES,
CARRIAGE WORKS,
CARRIAGE AND WAGON TIMBERS,
AGRICULTURAL IMPLEMENT WORKS,
CHAIR FACTORY,
BARREL FACTORY,
TOOTHPICK FACTORY,
WOODEN PIPE FACTORY.
ANYTHING OF WOOD.

Or
MACHINE SHOP,
FOUNDRY,
Or ANYTHING OF IRON.

LAST WEEK WE LOCATED A

ROLLER PROCESS FLOUR MILL,

A GOOD WOODWORKING ESTABLISHMENT

—AND A—

Male and Female College.

A CANNING ESTABLISHMENT

Is promised for next fall.

Every person who visits Lawrenceburg is impressed with advantages of its location.

Not a wheel has stopped during the recent hard times. Our factories are all making money, and there is room for many more.

SMALL INDUSTRIES--DIVERSIFIED INDUSTRIES, That is What We Want.

Some Excellent Investments can be Made in Lawrence County Timber and Mineral Lands.

ADDRESS

V. S. PEASE, Secretary,

Nashville, Tenn.

THE LAWRENCEBURG LAND & MINERAL CO.

Or Room 63, 185 Dearborn Street, CHICAGO, ILL.

LAWRENCEBURG, TENN

The Winston Land & Improvement Company.

Charter granted by Act of Legislature, Session of 1887. Ratified March 4, 1887, Chapter 82.

Authorized Capital, - - \$1,000,000.

Present Capital Stock \$125,000. All Subscribed and Paid Up.

OFFICERS:

G. W. HINSHAW, President, of Hinshaw & Medearis, Wholesale Merchants; Vice-President People's National Bank, Winston, N. C.
DR. W. L. BROWN, Vice-President, of Brown Brothers, Tobacco Manufacturers, Winston, N. C.
W. F. TROGDON, Secretary and Treasurer, North Wilkesboro, N. C.

BOARD OF DIRECTORS:

GEO. W. HINSHAW, Winston, N. C.
MAJ. CHANNING M. BOLTON, Chief Engineer Richmond & Danville Railroad, Washington, D. C.
P. H. HANES, of P. H. Hanes & Co., Tobacco Manufacturers, Winston, N. C.
COL. J. M. WINSTEAD, Cashier Piedmont Bank, Greensboro, N. C., and President H. P. Scales Tobacco Co., Atlanta, Ga.
A. A. FINLEY, ESQ., Mayor of North Wilkesboro, N. C.

ATTORNEYS:

T. B. FINLEY, ESQ., North Wilkesboro, N. C.
HON. C. B. WATSON, Winston, N. C.
HON. J. C. BUXTON, President First National Bank, Winston, N. C.
HON. W. W. BARBER, Wilkesboro, N. C.

THE COMPANY OWNS THE NEW TOWNSITE OF

NORTH WILKESBORO,

NORTH CAROLINA,

Consisting of 1,036 acres, and also owns 4,100 acres of Mineral and Timber Lands in Wilkes County, which property is now being developed. Townsite purchased November 11, 1890. Property put on market at private sale and first lot sold May 12, 1891. North Wilkesboro chartered by the legislature March 4, 1891.

Forty-three buildings already on the townsite.

Already established, one large, handsome, well-furnished and well-kept Hotel; one Saw Mill, Planing Mill, Door and Sash Factory combined; two Saw and Planing Mills; two Brick-yards; one Tan-yard; one Newspaper, the "North Wilkesboro Progress." Charter was obtained from the last General Assembly for the Bank of North Wilkesboro; the capital stock, \$50,000, has been subscribed, and bank will open for business as soon as the bank building can be completed; ten Stores and one large Livery Stable.

Ten miles of streets graded.

Manufacturing sites will be donated and stock subscribed to such legitimate enterprises as may be advantageously located here.

North Wilkesboro, 75 miles west of Winston-Salem, on the Northwestern North Carolina Railroad, is the most important trading point between Winston-Salem and Bristol,

Tenn., and is in the center of the great undeveloped mineral and timber district of Northwestern North Carolina, being by United States postal map, on an air line, 75 miles southeast of Bristol, Tenn., 45 miles east of Cranberry, N. C., 40 miles north of Statesville, 45 miles northeast of Hickory, 90 miles northeast of Asheville, 45 miles southwest of Mt. Airy, N. C., and 80 miles north of Norfolk & Western Railroad, in the Valley of the Yadkin, between the Bruohy mountains on the South and Blue Ridge on the north. The best located, watered and drained town in North Carolina.

Her climate is of unsurpassed salubrity and healthfulness. Fresh water and mineral springs abound, and the 328 miles of water courses in Wilkes County furnish a water power of almost incalculable magnitude.

Home seekers, health seekers, and wood and iron manufacturers, will do well to investigate North Wilkesboro's advantages.

PLATS, PRICES AND ANY DESIRED INFORMATION PROMPTLY FURNISHED ON APPLICATION TO

W. F. TROGDON, Secretary and Treasurer,

NORTH WILKESBORO, N. C.

ALEX. A. ARTHUR,
President.

FRANK WATTS,
Vice-President.

JOHN B. CARY,
Secretary and Treasurer.

The Middlesborough Town Company.

Capital - - \$3,000,000.

OFFERS TO

Manufacturers, Merchants, Bankers, Investors,

AND TO ALL OTHERS SEEKING A LOCATION TO BUILD

Factories, Foundries, Stores, Warehouses, Repositories, &c.,

REASONABLE INDUCEMENTS TO SELECT

Middlesborough, Ky.

AS A PLACE OF

RESIDENCE OR FOR BUSINESS.

Her Mineral and Timber Wealth is Unbounded and Inexhaustible.

Her Location is Unequaled.

Her Climate is Unexcelled in this Country.

Her Growth and Marvellous Development Stand Unparalleled in History.

Her Industries, Manufactories and Commerce aggregate the sum of \$21,000,000 of Capital actually invested.

She Enjoys Postal, Telegraph, Express, Banking and Insurance Facilities with all the Business World.

She has easy Communication by Rail with all Sections of the Country.

She has better Coking Coal than can be found elsewhere.

She is only Two Years Old and already has a Population of 8,000 People.

She has already two large Iron Furnaces completed, an immense Steel Plant, a mammoth Tannery in operation, a Brewery, Cold Storage and Ice Manufacturing Plant, Gun and Heavy Ordnance Works, a Telephone System, a Belt Railroad twenty-three miles long, an Electric Street Car System, Water Works, Electric Lights and hundreds of smaller plants of every description.

FOR ILLUSTRATED BOOKS, CIRCULARS AND ALL OTHER INFORMATION, ADDRESS

JOHN M. BROOKS, - Resident Manager,

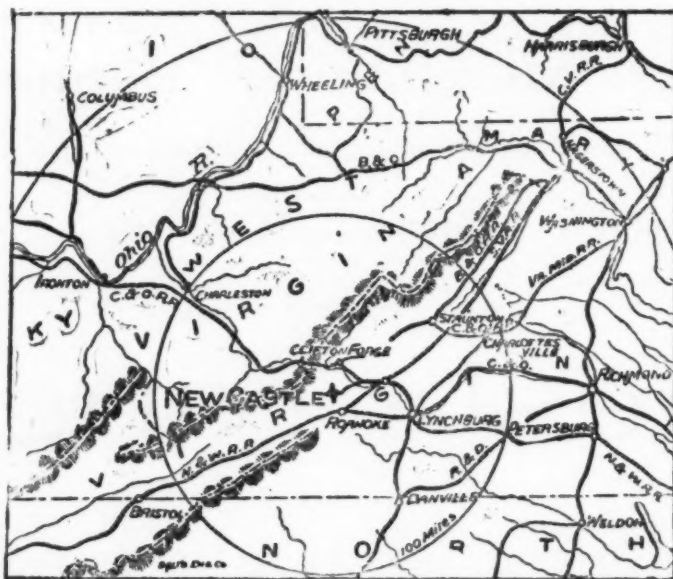
MIDDLESBOROUGH, KY.

NEW CASTLE, ^{Craig}County, VA.

THE IRON BONANZA, *

Convenient to Fuel Supply.

*A City of Immense
Possibilities without
a Rival in all that
goes to Create
Wealth and Power.*



*A Home for Invalids
in which to
Lengthen out their
Lives, and for all
to be and Remain
Healthy & Happy.*

PARADISE OF THE HUNTER AND HEALTH SEEKER.

Future City of the Alleghanies and
Center of Iron Production.

Commodious Hotel for the Entertainment of Summer Guests.

2,000 TOWN LOTS FOR SALE.

FOR INFORMATION ADDRESS

A. E. HUMPHREYS, Prest., New Castle, Va.

—: ALL EYES ARE UPON :—

NEWPORT NEWS.

Unequalled Natural Advantages and Unlimited Capital Combined for
the Upbuilding of a Great Seaport City.

THE NEWPORT NEWS COMPANY,

Having acquired a large body of land—the
best in the entire Newport News section—and
having platted the same, now offers for sale at
moderate prices and on easy terms

Choice Villa Sites Building Lots,

Which will be made readily accessible by the
completion of the electric railway between
Newport News, Hampton and Old Point.

This property is situated on a plateau
looking out upon Hampton Roads, one of the
finest harbors in the world.

It is only a few minutes' ride from the
business center of Newport News, whose won-
derful and substantial growth is attracting
world-wide attention.



BUY LOTS AT FIRST PRICES.

PRICE-LIST FURNISHED ON APPLICATION.

L. P. ROUTT, - - General Agent, - - Richmond, Va.

ELKTON, VIRGINIA.

IN THE WORLD-FAMED SHENANDOAH VALLEY.

Presents to-day the Best Opportunities for Safe and Profitable Investments to be Found in Virginia.

In one short year it has grown from a mere hamlet to a town of nearly 900 souls.

When factories now in course of construction are all in operation, at least 1,200 people will have their homes in Elkton.

Our industries are numerous and varied.

We do not depend on any one big concern to make or break us.

The immense TIMBER SUPPLY gives employment to a number of Saw Mills and Planing Mills and Lumber Yards.

We have also a Sash, Door and Blind Factory,

A Steam Bark Mill (under construction),

A New Roller Mill, 100 barrels daily capacity,

A Large Tannery,

Steam Brick Works,

A Cannery (contracted for),

Wagon and Spoke Factory (under construction),

A Large Cutlery Factory, nearly completed, which will employ at least 50 hands, and which will begin work in June.

Besides, are the various minor industries to be found in every town, such as Blacksmith, Harness, Wheelwright, Carpenter, Cabinet Makers, Tinnors, Plumbers, Etc., Etc.

A Water Company supplies pure Lithia Water through a complete system of pipes to all residences and stores desiring it.

RATES:

For Single Days, . . . \$2 to \$3
Weekly Rates, . . . \$9 to \$15
Monthly Rates, . . . \$25 to \$50

Special Rates to Ministers.



THE ELKTON HOTEL.

Rooms May be Engaged and
Prices Fixed by Applying to

C. P. WALTERMIRE, Manager.

June 22, 1891.

The Finest Hotel in Virginia, "THE ELKTON," is here. Run under the management of the Elkton Improvement Company.

Lighted by gas, supplied with pure lithia water in unlimited quantity, and with all modern conveniences.

Investors will find our property priced so as to insure profits.

NO FANCY PRICES have been asked, but values will be confined to ACTUAL WORTH.

We invite Investors, Home Seekers, Tourists, Business Men, Manufacturers, small and great, to COME TO ELKTON.

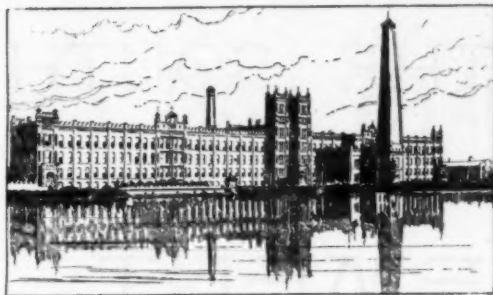
FOR PARTICULARS ADDRESS

THE ELKTON IMPROVEMENT COMPANY,

S. P. H. MILLER, President.

S. C. SPENCER, General Manager.

THOMAS E. HARRSBERGER, Secretary & Treasurer.



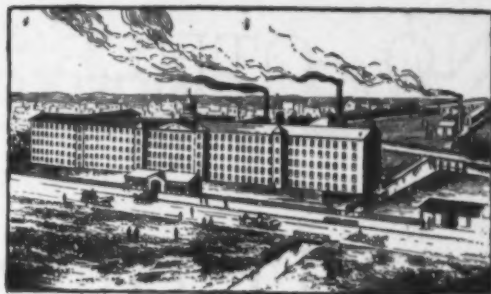
SIBLEY COTTON MILLS.

New Pictures Every Week.

ILLUSTRATING

AUGUSTA, GEORGIA.

THE HOME OF



AUGUSTA COTTON FACTORY.

The Augusta Exposition.

Opens November 2, and Closes November 28, 1891.

The following information concerning the City will be of interest:

AUGUSTA, GEORGIA, offers unequalled advantages for the Southern location of factories, and calls attention to the following facts:

Augusta has long been the **LARGEST COTTON MANUFACTURING CITY IN THE SOUTH**, having gained for herself the sobriquet of the "Lowell of the South," and she will lead in other manufactures.

She has twelve large cotton factories, which, alone, are more than any of the entire States of Arkansas, Florida, Louisiana or Missouri, and the same number as the State of Mississippi. She has the best map position in the Southern territory, standing between the North and the extreme South, in access to the Atlantic Ocean, and in the midst of the most vital and far-reaching systems of railroads in the South. She is at the **HEAD OF STEAM NAVIGATION** of the SAVANNAH RIVER, opening to the sea, and is the best point relative to Northern, Western and Southern home, and Southwestern foreign markets, in a Southern direction.

Augusta is the center of the richest and most populous agricultural region of the Southeast, making her the **SECOND LARGEST INLAND COTTON MARKET IN THE UNITED STATES**, Memphis being first, and guaranteeing support by home consumption alone to many manufactories.

Augusta has a population of 45,000 (including suburbs) which is larger than that of Chattanooga, Little Rock, Knoxville or Birmingham. Augusta's tributary territory is filling with towns, and has a population of 1,000,000. Augusta and her territory support home industries.

Augusta is in the midst of vast fields of kaolin, fire-brick and other clays, ochre and superior glass sand; and granite, marble, copper, iron and coal are in easy access.

Augusta is the **LARGEST LUMBER MANUFACTURING CITY** in Georgia, which means the largest in many States, and besides pine, has unlimited quantities of hardwoods for every kind of hardwood manufacture—oaks, of all varieties; hickories; ashes; poplars; maple; cedar; cypress; walnut; sassafras; tupelo, and other gums.

Augusta is assured low freight rates for all time by her river; as, for instance, her present rate on Eastern freights is 18 cents per hundred less than either Macon's or Atlanta's (though Augusta is 112 miles from the sea), and only 2 cents more than Atlanta's on freights from the West.

Augusta is essentially a **MANUFACTURING CITY**. She has one of the most superb canal water-powers in the world, and by long odds the finest in the South, but notwithstanding this power, the city is filled with black chimneys and smoke and steam jets, while at the same time electric motors run many establishments.

Augusta's canal furnishes 11,000 horse-power, of which there are about 2,500 yet unused for day use, sufficient for many small industries, and nearly the full daily quota for night use. The capacity of the canal may be increased to 14,000 horse-power.

Augusta's canal cost her \$2,000,000, and power is rented cheaply at \$5.50 per horse-power per annum.

Augusta is not one of the new cities where there is everything of a public nature yet to do, with consequent high taxes for a long time, but is one of the oldest cities of the South, firmly built and established, with streets, water works, sewers, gas, electric light and power plants, public schools, public libraries, societies, parks and churches, and city and government public buildings, coupled to an energetic citizenship and the spirit of the new South.

Augusta is in the midst of many materials for manufacture, is commanding among Southern cities with a great future as with a great present and past, is increasing in population and extent with phenomenal rapidity, is having many added miscellaneous manufactures, and will welcome the founders of every new industry, great or small—irrespective of creeds, political faiths or nationalities—bringing capital and honest and earnest citizenship.

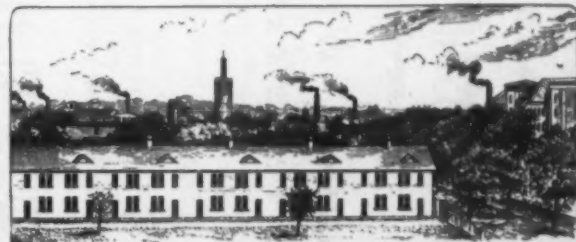
Many new industries are needed, especially those working in wood, cotton, leather, kaolin, clays and fruits.

Any information will be cheerfully given by any of the following parties:



BROAD STREET.

PATRICK WALSH, President Augusta Exposition.
D. B. DYER, President Augusta Ry. Co.
E. J. O'CONNOR, President Murray Hill Improvement Co.
JAMES U. JACKSON, Manager North Augusta Land Co.
J. H. ALEXANDER, President Alexander Seed & Drug Co.
C. V. WALKER, President Augusta Real Estate Exchange.
W. C. JONES, Secretary Augusta Real Estate & Improvement Co.
O. E. COFFIN, President Mutual Real Estate & Building Association.
A. J. GOULEY, President Irish-American Investment Co.
JAS. L. FLEMING, President Augusta Real Estate & Investment Co.
W. C. JONES, Secretary Augusta & Summerville Land Co.
BOYKIN WRIGHT, President Druid Park Land Co.



AMONG THE MANUFACTORIES.

NO OTHER TOWN IN THE SOUTH

CAN SHOW THE SAME AMOUNT OF

STEADY IMPROVEMENT

DURING THE RECENT DULL TIMES AS CAN

RUTHERFORDTON.

NORTH CAROLINA.

POPULATION:

750 in 1890.

1,500 in 1891.

WILL SOON BE A CITY OF 5,000 INHABITANTS.

"MORE NEW HOUSES THAN OLD ONES IN RUTHERFORDTON."

The Finest All-The-Year-Round Climate Under the Sun.

Real Estate Men

ATTENTION.

WE OFFER YOU

Splendid Opportunities for Investment.

RUTHERFORDTON

Acre Property

SUITABLE FOR

SUB-DIVISION,

ALSO

LOT PROPERTY IN BLOCKS

AT LOW PRICES.

The Property of the Gleghorn Co.

SURROUNDS the present BUSINESS and RESIDENCE portion
of RUTHERFORDTON on all sides and includes
business property on Main Street.

REAL ESTATE MEN SEEKING, A

PROFITABLE LOCATION IN A NEW FIELD

SHOULD CORRESPOND WITH

J. MATHEWS, Secretary,

RUTHERFORDTON, N. C.

DO YOU WANT A MANUFACTURING SITE?

Come to **RUTHERFORDTON, N. C.** and Select it.

The Gleghorn Land & Mfg. Co.

MEANS BUSINESS.

Everything to Offer the Man of Business and the Man Who Seeks a Home.

NO BETTER PLACE FOR MANUFACTURING OR TO LIVE.

Address **J. MATHEWS, Secretary Gleghorn Company, RUTHERFORDTON, N. C.**

11,500 ACRES

Hardwood Timber Lands,

\$3, \$4 AND \$5 PER ACRE.

CHOICE TRACTS,

Selected from over 100,000 acres of Western North Carolina
Lands, suitable for

LUMBERING, FARMING,

FRUIT GROWING,

SHEEP RANCHES,

COLONIZATION.

7,000 ACRE TRACT

AT \$3 PER ACRE.

This tract is in Western North Carolina, and has been variously estimated by different millmen to cut from 6,000 to 12,000 feet to the acre of oak, poplar, chestnut and hickory. Reckoning the stumpage at \$1 per 1,000 feet, and at the lowest estimate there is a hundred per cent profit in the stumpage alone. Two thirds of the land, when cleared, is of value for agriculture. The tract is situated in the heart of the so-called "fruit belt" of the South, and is rapidly being developed. Within 15 miles of where Greenville is building a million-dollar palace. An all-the-year-round climate that is unsurpassed on earth. Seven miles from one railroad, eight from another. Title guaranteed. Claim from 1796 to date.

JUST THE TRACT UPON WHICH TO

LOCATE A COLONY.

4,500 ACRES AT \$5.

This tract is three to seven miles from a railroad, with main body of timber four to six miles from a logging railroad all the way. Splendid timber. PERFECT TITLE.

For Investment Nothing is Safer

OR MORE

Certain to Bring Large Returns

THAN ARE

SOUTHERN TIMBER LANDS

AT THESE LOW PRICES

ADDRESS

**J. MATHEWS, Secretary Gleghorn Company,
RUTHERFORDTON, N. C.**

Are You Looking For An Investment?

Millions of money, returned to Eastern capitalists by the flush grain raisers of the West, is coming South this year.

North Carolina, which has never been boomed, but whose great natural wealth is now being widely recognized, is going to get a big share of this new capital.

WINSTON-SALEM

Is by all odds the most important city in North Carolina, and in fact one of the best in the upper South.

Why? Because

It has the largest number of plug tobacco factories of any city in the world.

It is in the most fertile agricultural section in the State. Its 120 factories employ 5,000 to 6,000 hands, and pay out over \$1,000,000 a year for wages. Its population is about 16,000, an increase of 12,000 in twenty years.

Its municipal tax is 75 cents per \$100, on a 33 1-3 per cent. valuation. County, State and school, 66 2-3 cents per \$100, on about 40 per cent. valuation. County free from debt. Three hundred houses were built during the 12 months just past,—about the dullest period known to the South generally since 1865.

It didn't pay much attention to panics, but kept right on improving, building railroads, paving streets, and putting up new factories.

It has electric street cars, electric lights, water, gas, sewerage.

It has five miles of paved streets, curbing and sidewalks.

It has splendid schools, churches, society, and all comforts of a refined and cultured community.

Winston-Salem Real Estate is a Good Buy.

No one has ever yet failed to make good money on real estate in Winston-Salem.

Values have increased about 100 per cent. per annum during the past three years, and yet are to-day 30 to 50 per cent. lower than in Roanoke, Va., Bristol, Tenn., or most any other good, live, growing town in the South.

In spite of the enormous building operations of the past year, the supply is far behind the demand. Vacant storerooms are unknown, and residences are rented before finished.

You Can Make Money

By buying lots and putting up business houses, office buildings, or residences.

By establishing new factories—wood-working establishments, cotton factories, tobacco factories, flouring mills, and many other industries.

By engaging in various wholesale and retail mercantile pursuits.

By investments in bank stock. There is a demand for \$500,000 additional banking capital.

By purchasing lots and land and holding for a rise.

In short, by getting into the swim, and fitting yourself to the place which suits you best.

An Auction Sale of Lots

Will be held by the WINSTON-SALEM LAND & INVESTMENT Co., in November. This company has spent over \$75,000 in improving its 518 acres of suburban property. It has electric street cars, electric lights, water works, and macadamized streets, and the property is divided into three sections—business, manufacturing and residence. About a dozen fine residences are now being constructed on the property.

It Will Pay You

To come over to Winston-Salem at this time. The railroads will give reduced rates. There will be money made in lots bought at this sale, and you are likely to see several chances to improve your lot in life.

Write the Chamber of Commerce

If you want information of any kind about this active, growing, pushing young North Carolina metropolis.

SAVERNAKE, *Rockbridge County,* VIRGINIA.

FOR 1891 Offers to the Investor a Most Desirable Opportunity for Profit.

LOTS for Business and Residence Purposes

AT PRICES TO SUIT THE TIMES.

SAVERNAKE adjoins Buena Vista on the Southwest; fronts on Shenandoah Valley Railroad and on James River Division of the Chesapeake & Ohio Railway. High Grade Manganese and Iron Ores to steel and iron trades. Safety and profit to investors. Healthy and picturesque homes at moderate prices to lot buyers, notwithstanding the late depression due to monetary stringency and unusually severe weather.

The industries secured for Savernake have all been retained, and will proceed to build as soon as the weather permits.

THE SAVERNAKE PRESSED BRICK COMPANY.

This Company, formed to manufacture from the superior clay deposits found at Savernake, the highest grade pressed, front and ornamental brick, is now erecting the pressed brick works,

CAPACITY 40,000 BRICK DAILY.

The capital of the Company is \$30,000, full paid. The grade of brick to be made here sells now for \$30 per 1000 at Buena Vista, and allows a very fair margin of profit, insuring large dividends to shareholders.

A limited amount of stock remains unsold.

Prospectus may be had and all information obtained by application at office of Savernake Pressed Brick Co., Savernake, Va.

It is expected that the works will be completed and in operation in thirty days.

THE SAVERNAKE INVESTMENT CO.

The Savernake Investment Company has been organized under a very liberal charter, granted by the Circuit Court of Rockbridge county, Va. It is empowered to do a general

CONSTRUCTION AND IMPROVEMENT BUSINESS,

to buy, sell, rent or lease real estate, to remove encumbrances from the same, to accumulate funds for investment, loans, manufacturing, banking commercial or other purposes, as may seem to the Directors most profitable.

The Company has purchased seventy-five residence lots and twenty-five business lots in the town of Savernake for \$35,000 of paid-up stock

in the Investment Company. The present market value of the above lots is \$62,500, thus leaving \$27,500 over and above the amount paid for the lots as a profit, belonging to the stockholders.

It is proposed to make the minimum stock of the Company \$70,000, to be divided into shares of \$50 each; 700 shares will be issued to the Company in full payment for the 100 lots purchased, and the remaining 700 shares (\$35,000) will be placed on the market on the following

TERMS:

Ten per cent. at the time of subscription,	\$ 5 00
Ten per cent. on call of the Directors,	5 00
Ten per cent. every thirty days thereafter,	40 00
Par value,	\$50 00

The \$35,000 realized from the sale of the stock will be used in building upon and improving the lots purchased, or for other purposes named in the charter, as may be deemed most profitable by the Board of Directors.

ATTENTION is called to the fact that no Building or Investment Company yet organized at any of the new towns of Virginia has failed to realize large profits.

THE VALLEY INVESTMENT COMPANY, of Buena Vista, organized July, 1890, capital \$10,000, on October 1st, with a paid-up capital of \$4,000, showed net earnings \$6,000.

THE SOUTHWEST VIRGINIA INVESTMENT COMPANY, composed of Philadelphia capitalists, organized about two months since, with a capital of \$100,000, now shows profit of \$33,000.

THE HOME INVESTMENT COMPANY, of Buena Vista, commenced business about September 1st, 1890, with \$3,000 paid in, and on the 15th of October last, reported as actual undivided profits \$1,710, and an estimated profit of \$23,000, representing the difference between the cost of their property and the market value.

THE LEXINGTON INVESTMENT COMPANY commenced operations at Buena Vista about twelve months since, with a proposed capital of \$30,000. Paid \$10,750 for 50 lots; after collecting 50 per cent., declared the stock paid up, and could realize \$420 per share if the property were placed on the market.

When it is considered as a basis for the subscription of \$35,000 to the capital stock of the Savernake Investment Company that its 100 lots are paid for in full and represent a positive value of \$27,500 more than the amount paid for them, it must readily suggest to any one the very desirable character of this stock. Under the charter the following are the officers of the company for the first year:

OFFICERS:

PRESIDENT, J. HOWARD WAYT, Staunton, Va.
SECRETARY AND TREASURER, J. E. B. STUART, Buena Vista, Va.

VICE-PRESIDENT, THOMAS DUNLAP, Savernake, Va.
MANAGER, J. M. HENKLE, Buena Vista, Va.

DIRECTORS:

J. HOWARD WAYT, Staunton, Va. THOMAS DUNLAP, Savernake, Va. W. H. H. LYNN, Staunton, Va. J. M. HENKLE, Buena Vista, Va.
SAMUEL SADDINGTON, London, England. STEVENS M. TAYLOR, Lexington, Va. J. E. B. STUART, Buena Vista, Va.

Subscriptions may be sent to and all information had of J. E. B. STUART, Secretary and Treasurer, Buena Vista, Va.

Capitalists Desiring Prudent Investments

to Southern Manufacturing Enterprises, conducted by experienced specialists in works with an established trade for years and proposing to remove to

SAVERNAKE

with the coming spring, can address the management as below.

THE LINES OF MANUFACTURES PROPOSED, ARE:

Steel Ingots.

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Industrial Town

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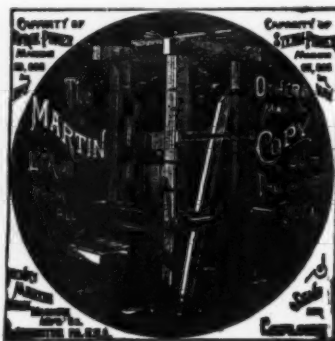
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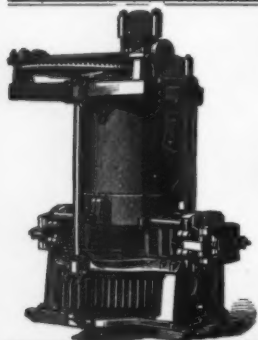
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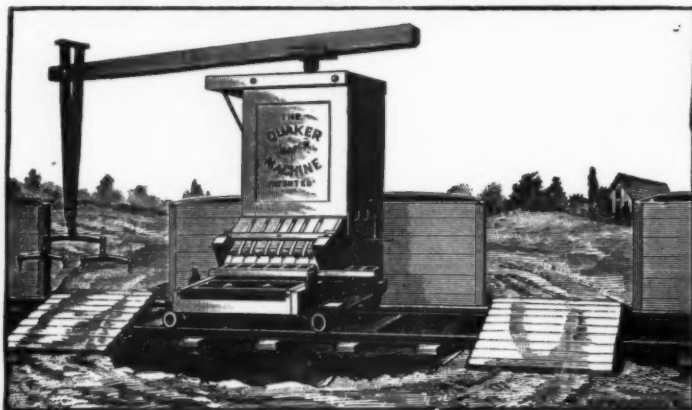
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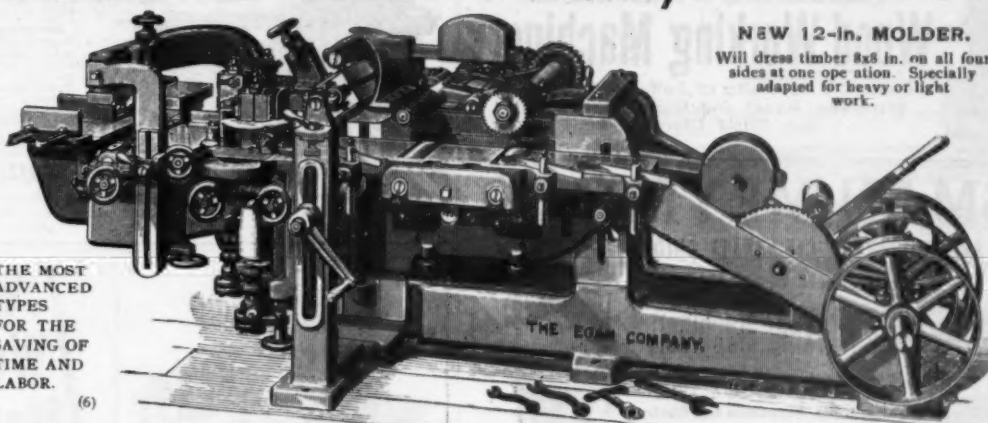
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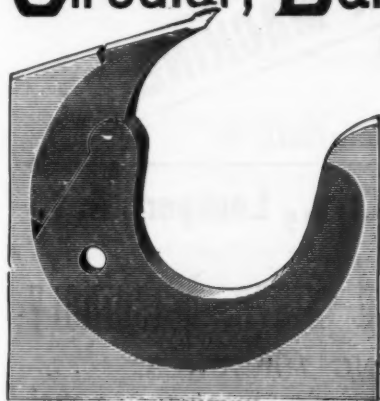
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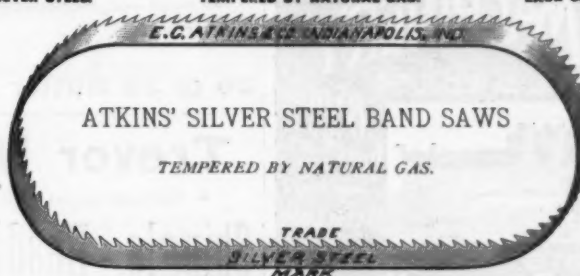


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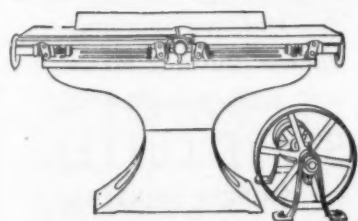
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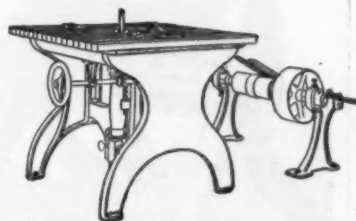


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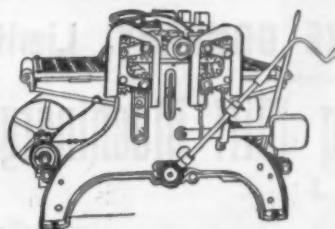
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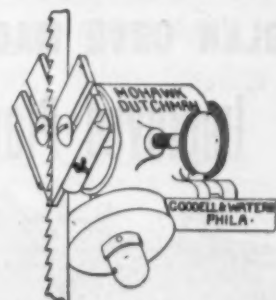
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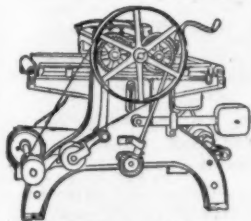
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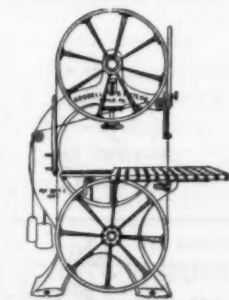
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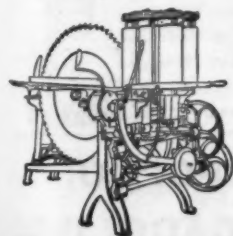
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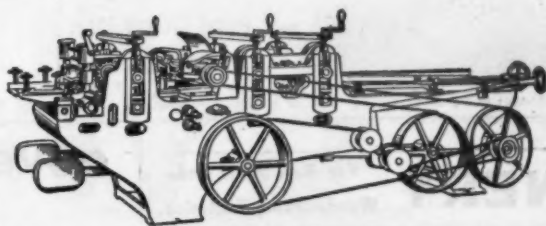
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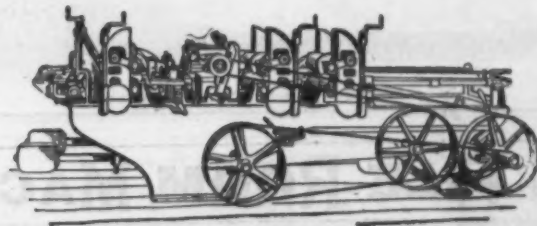
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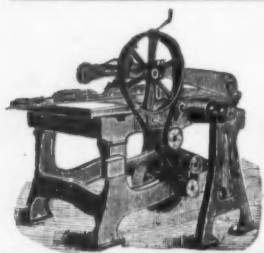
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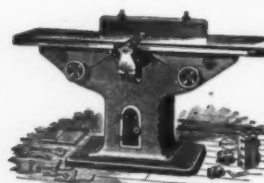
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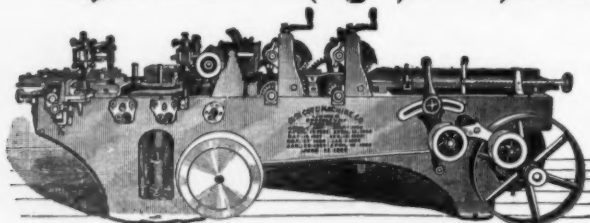
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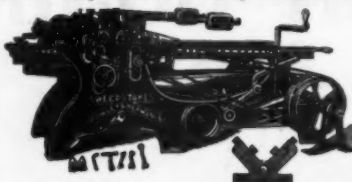
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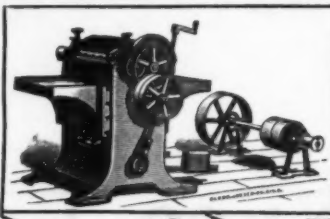
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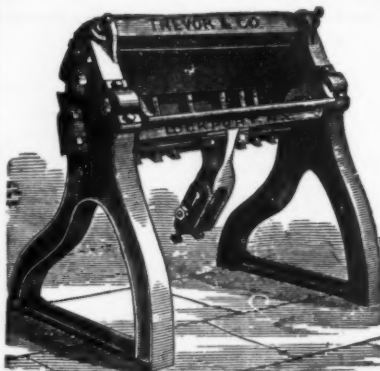
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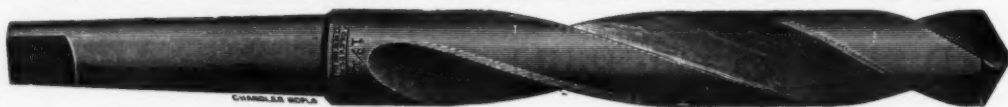
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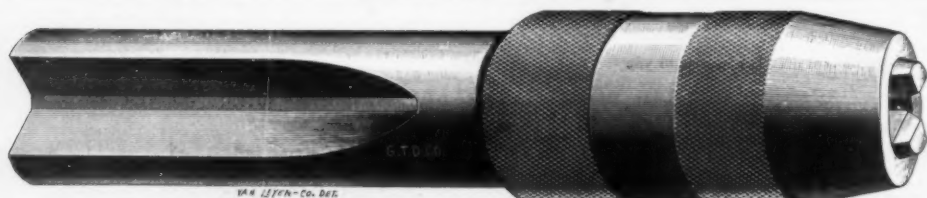
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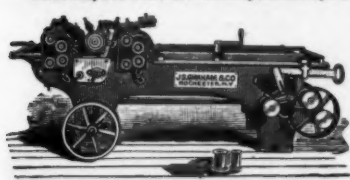
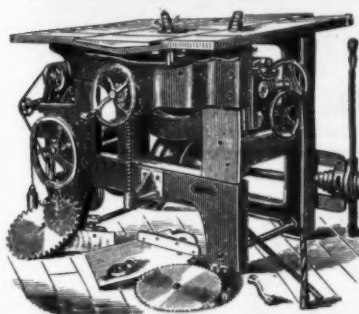
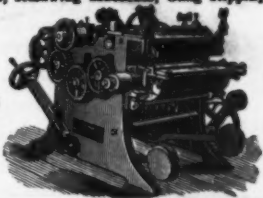
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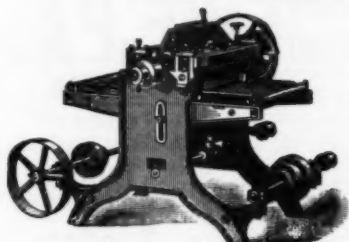
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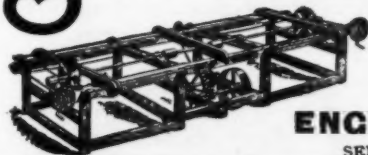
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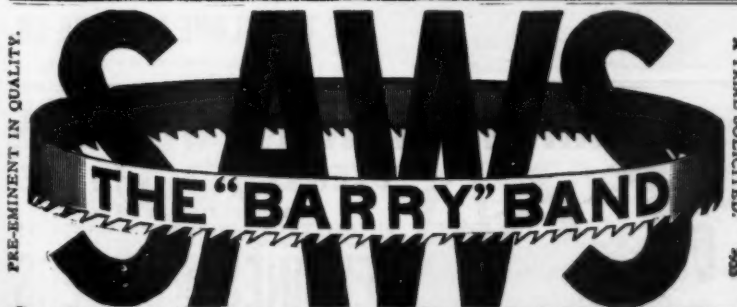
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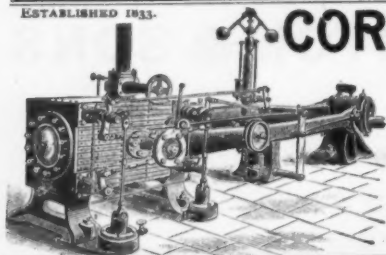
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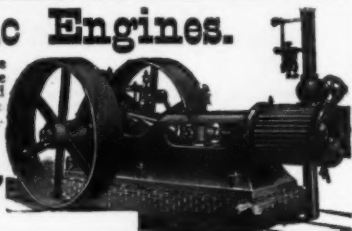
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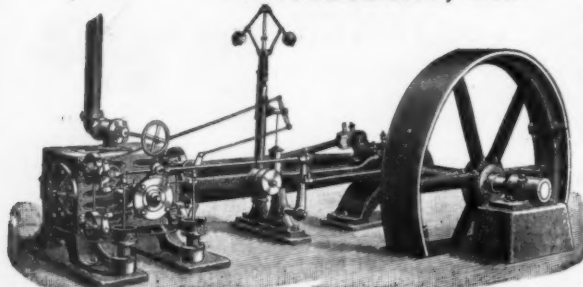
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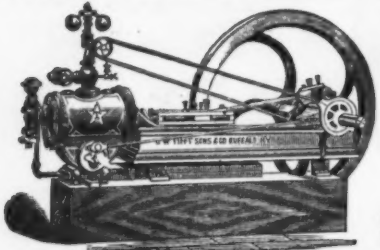
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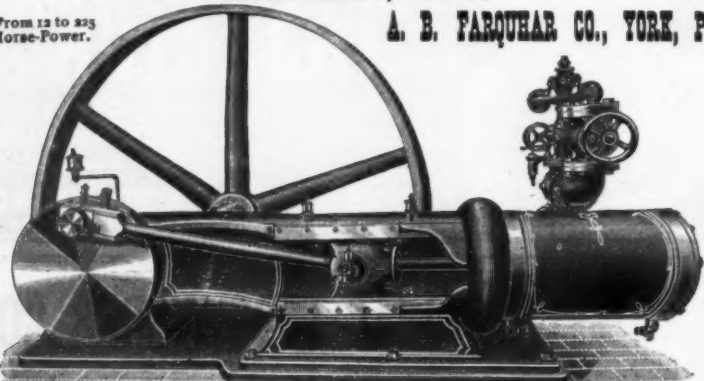
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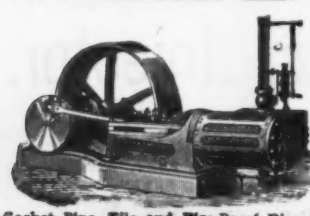
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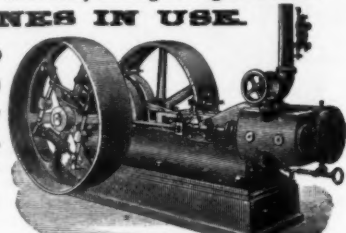
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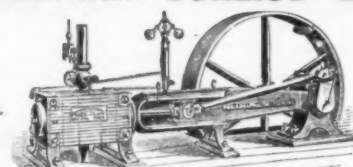
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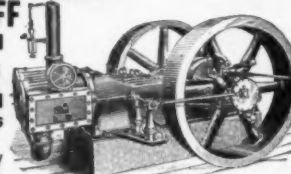
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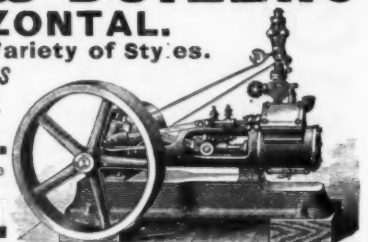
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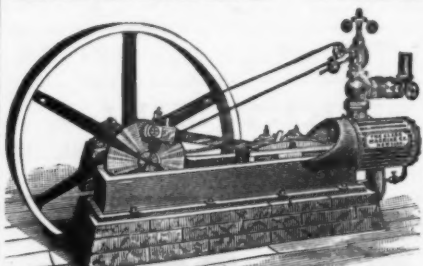
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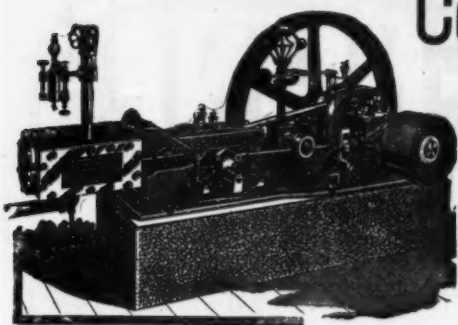
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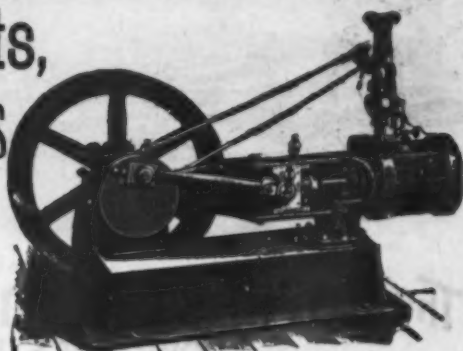
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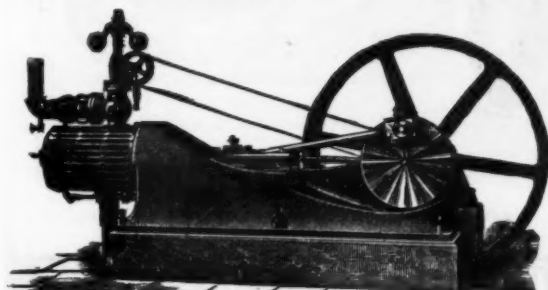
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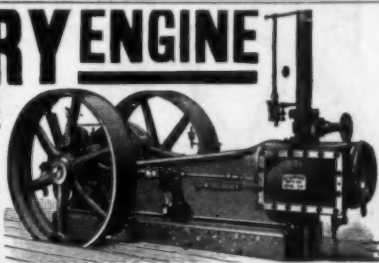
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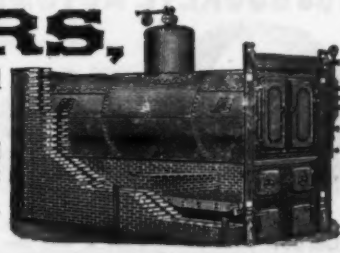
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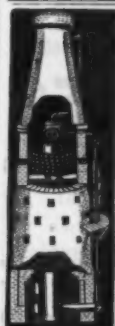
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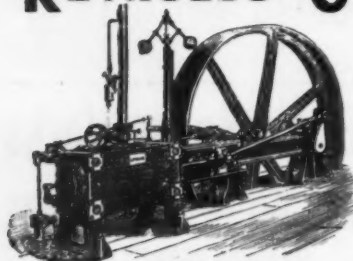
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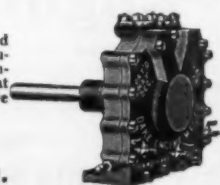
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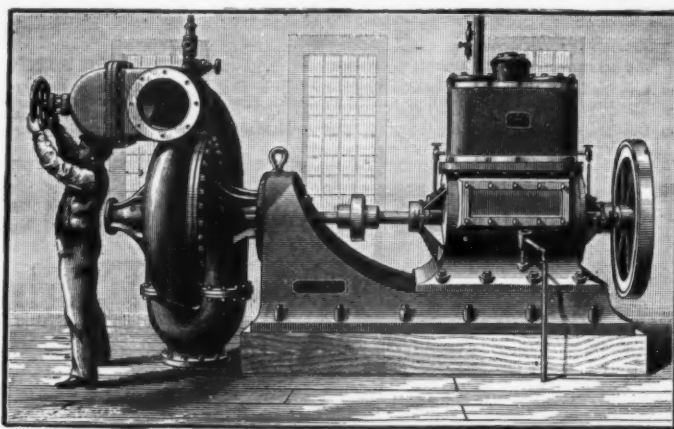
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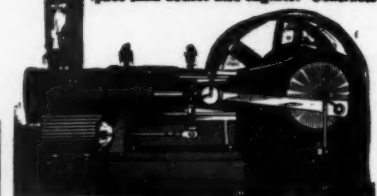
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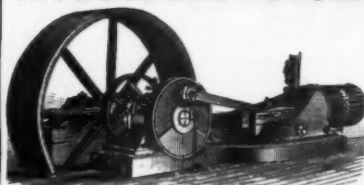
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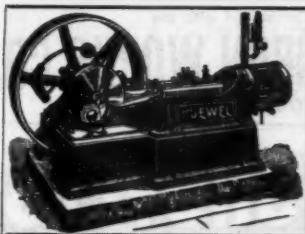


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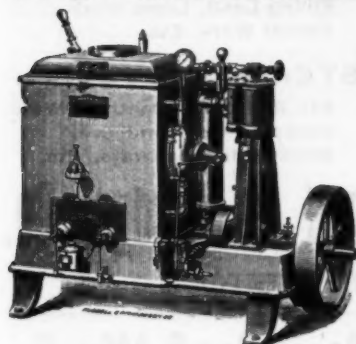
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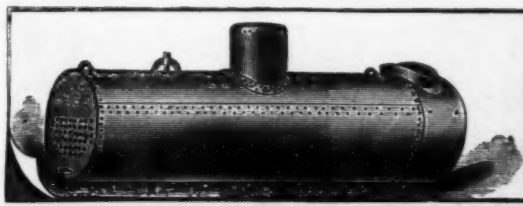
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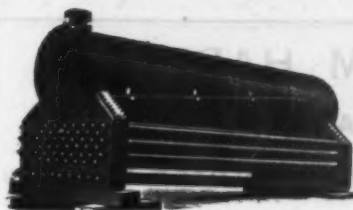
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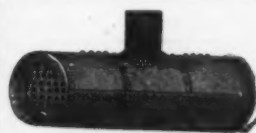
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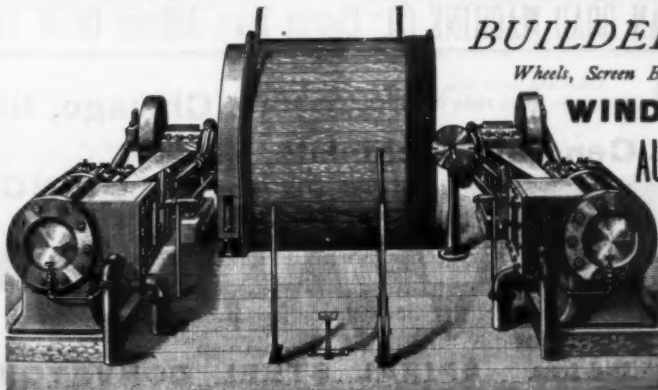
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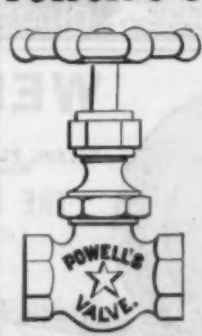
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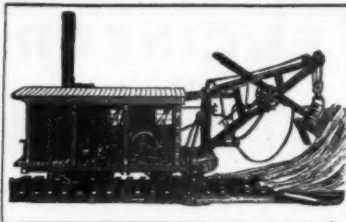
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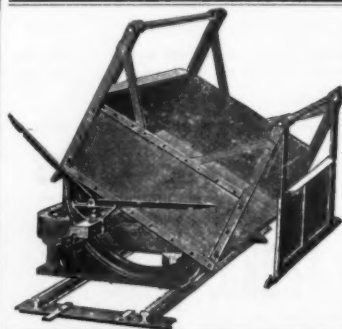


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Is the most Substantial, Cheapest and Best Dirt Barrow on the Market.
 Has tray of No. 14 steel and frame of thoroughly seasoned Hardwood with Steel Wheel. Axle
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 to be well adapted to all climates. Will outlast a dozen common wood dirt barrows, and where
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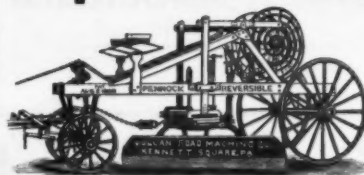


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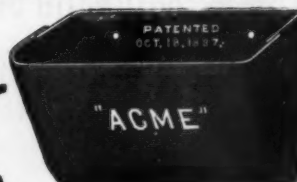
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Railroad Construction

Americus, Ga.—Railroad.—The Americus & Tampa Railroad Co. has been chartered in Florida by E. H. Hardaway, of Tuscaloosa, Ala.; Joseph Tillman, of Quitman, and J. J. Williford, of Americus. The company is authorized to build a railroad from the Florida-Georgia line to the waters in Tampa bay, a distance of 210 miles. The capital stock is \$2,500,000.

Austin, Texas.—Railroad.—The Austin & Northwestern Railroad Co. will issue bonds to build its extension to Llano, lately referred to.

Birmingham, Ala.—Electrical Railroad.—The Elyton Land Co. will probably adopt an electric storage battery system for its South Highlands street railway.

Brunswick, Ga.—Railroad.—The Brunswick, La Grange & Northwestern Railroad Co., recently mentioned, has obtained its charter. The company proposes building nearly an air line from Brunswick via La Grange to Anniston, Ala. James H. Fannin, of Atlanta, can give particulars.

Byron, Ga.—Railroad.—O. W. Murray, of Fort Valley, will make a survey for a railroad which James Taylor intends building from Byron to Taylor, a distance of 8 miles.

Canaveral, Fla.—Railroad.—Henry H. Hanson, of Titusville, secretary of the Canaveral & South Florida Railroad Co., writes that his company expects to shortly build from Canaveral to Kissimmee.

Cornelius, Ga.—Railroad.—The Soque & Tallulah River Railroad Co., previously reported as applying to the legislature for a charter, has been granted same. The corporators are H. V. M. Miller, E. P. Howell, M. C. Kiser and H. L. Culbertson, of Atlanta, and the road is to run from Cornelius via Clarksville and Burton to a point on the Georgia and North Carolina line. The capital stock is \$700,000.

Fayetteville, N. C.—Street Railway.—The Cumberland Co., organized with John C. Gittings, of Baltimore, president; H. W. Lilly, of Fayetteville, vice-president, and S. M. Miller, general manager, contemplates building a street railway.

Greensborough, Md.—Railroad.—The Philadelphia, Wilmington & Baltimore Railroad Co. (office, Philadelphia, Pa.) has, it is stated, become interested in the project to build a railroad from Greensborough via Denton to Federalburg, previously referred to, and commenced surveying the route. The distance is about 20 miles.

Hawesville, Ky.—Railroad.—Riester Bros., of Scottsdale, Pa., represented by W. P. Hurst, are surveying a 6 mile railroad to the coal fields.

Lakeland, Fla.—Railroad.—The permanent location of the Arcadia, Lakeland & Gulf Railroad, previously reported, has been completed. K. B. Harvey, of Punta Gorda, is engineer.

Lynchburg, Va.—Belt Railroad.—R. T. Gleaves is running lines for the Lynchburg Belt Railroad, previously reported, and negotiations for right of way for the line connecting the Lynchburg & Durham and the Norfolk & Western are understood to be in progress.

Marietta, Ga.—Street Railway.—The Marietta Water Works Co., referred to in our "Construction Department," proposes building a street railway.

Mobile, Ala.—Railroad.—R. T. Hays and A. H. Curling, civil engineers, representing English capital that contemplates building the Mobile, Jackson & Kansas City Railroad, have, in company with M. H. Bond, assistant engineer of the road, gone over the route and will, it is stated, submit a favorable report to their principals.

Monroe, La.—Electrical Railroad.—W. A. Bright proposes building an electrical railroad.

Mt. Sterling, Ky.—Railroad.—The citizens of Mt. Sterling and Montgomery counties have voted to subscribe \$100,000 to the capital stock of the Kentucky Midland Railway Co. (office, Frankfort) in order to secure the extension from Paris to Mt. Sterling and Clay City, lately mentioned.

Newport, Ky.—Railroad Bridge.—The Pittsburgh, Cincinnati, Chicago & St. Louis Railway Co. (office, Pittsburgh, Pa.) contemplates repairing the Newport and Cincinnati bridge, referred to in last issue, and will not build a new bridge.

North Danville, Va.—Electrical Railroad.—H. L. Morey, of Hamilton, Ohio, and M. H. Bantlin, of North Danville, have awarded contract for constructing their street railway previously reported. Horse-power will be used at first, but electricity will be adopted later on.

Oakville, Texas.—Railroad.—A fund is being raised to secure the extension of the Gulf, Western Texas & Pacific Railroad (office, Cuero) from Beeville west to Oakville.

Ocala, Fla.—Electrical Railroad.—An electrical railroad will be built from Ocala to Silver Springs. The Ocala Co. is interested.

Osceola, Fla.—Tram-road.—The Florida Sugar Manufacturing Co. will build a 2 mile tram road.

Riverside, Ark.—Railroad.—It is reported that the work of building the Houston, Central Ar-

kansas & Northern Railroad, previously reported, from Riverside to Alexandria, La., a distance of 75 miles, has been commenced.

Rome, Ga.—Electrical Railroad.—M. E. Marvin and Col. Bigelow, of New York; J. F. Lawrence and O. G. Staples, of Washington, D. C., are the purchasers of the Rome Street Railway, mentioned in last issue. It is intended to immediately change to the electric system.

Savannah, Ga.—Electrical Railroads.—The Brush Electric Light & Power Co. is said to be negotiating for the purchase of the City & Suburban Railway, Coast Line Railroad and the Thunderbolt & Sandfly Railway. The result of sale would probably be the operation of the lines by electricity.

Savannah, Ga.—Street Railway.—The South-over Street Railroad Co., lately referred to, has received its charter. The corporators are J. L. Whately, C. H. Olmstead, C. H. Dorsett and others. The motive power is to be either electricity, steam or horse-power. The capital stock is \$15,000.

Scottsboro, Ala.—Railroad.—It is reported that a railroad will be built from Scottsboro via the new town of Columbus City to Guntersville. The Southern Industries Co., 1 Beacon street, Boston, Mass., can probably give particulars.

Smithsonia, Ga.—Railroad.—Efforts are being made to have the projected route of the Smithsonia, Danielsville & Carnesville Railroad so changed that the line will run via Fort Lamar and Bold Springs to Homer, and not touching at Carnesville.

Talbotton, Ga.—Railroad.—A bill incorporating the Chalybeate Springs Railroad Co., having passed the legislature and been approved by the governor, is now a law. The company intends building a railroad from Talbotton via Chalybeate Springs to Woodbury, and J. G. Johnston, N. C. Campbell, J. M. Terrell, of Greeneville, and others are the corporators.

Union, S. C.—Railroad.—The city has voted a subscription of \$20,000 to the Cape Fear & Cincinnati Railroad, lately referred to.

Washington, Ga.—Railroad.—The Washington & Middleton Railroad Co., mentioned in last issue, is chartered to build a railroad from Washington to Middleton, a distance of about 30 miles. S. H. Martin, W. H. Mallon, J. W. McCalla and others are interested. The capital stock is \$500,000.

Wilmington, N. C.—Electrical Railroad.—The board of aldermen have granted the privileges asked for by the Wilmington Street Railway Co., lately mentioned. This action, it is understood, assures the changing of the motive power to electricity. E. L. Hawks can give particulars.

Wilmington, N. C.—Railroad.—The charter of the Wilmington & Southport Railroad has been purchased by parties who have organized under the name of the Brunswick, Western & Southern Railroad Co., with George L. Dunlap, of Chicago, president; Dr. Frank Ullery, of Chicago, vice-president; George H. Bliss, of Chicago, secretary, and H. H. Dougherty, of Newark, N. J., general manager. It is said that the road will be completed and in operation from Wilmington to Southport by April 1. It is proposed to make Southport a coaling station for ocean steamships, and with this end in view the promoters of the scheme intend building the road southward from Southport and then westward to connection with Chattanooga and Cincinnati. A surveying corps will, it is understood, be soon placed in the field in charge of the general manager.

THE great activity in shipping interests at Southern ports is illustrated in a local item from the Savannah News, which reported a few days ago that there were then 68 vessels of all classes in port loading cotton, naval stores, lumber, &c. Of these there were 20 steamships, with an aggregate capacity of about 120,000 bales, loading cotton for foreign ports.

IT is reported that the Co-operative Town Co. has selected Elizabethton, Tenn., as the site for their proposed town enterprise.

THE Manganese Coal & Iron Co., which owns 20,000 acres of picked lands on the southwest slope of upper Craig valley, which is underlaid with bodies of iron ore and manganese, will soon inaugurate a plan of development which will be of interest to ironmasters everywhere. The ores on this property are very rich and persistent.

REFRIGERATION.

The Science of the Day.

[Written for the MANUFACTURERS' RECORD.]

II.

That ice would preserve meats and carcasses of animals while being transported considerable distances, if made to thoroughly encase them, has been known for centuries, but it did not seem to occur to anyone until within a comparatively recent period that such articles, even without being frozen, might be kept in store for long periods without injury or deterioration by the use of ice as the preservative agent. Of much more recent date was the inauguration of refrigeration by mechanical means—a process which now threatens to drive Dame Nature out of the refrigerating business as far as its application to human necessities is concerned.

It is true that a traditional record exists to the effect that more than 1,000 years ago a Finnish tribe of the Vistula, known as the Esthonians, preserved their dead for from one month to six months by some subtle process of refrigeration, and that they could cause a glass of ale or water to freeze in the hottest summer weather; but the only authentic record of successful refrigeration by chemical agents is not yet as old as the "three score years and ten" allotted to man as the term of his natural life.

It was in 1824 that John Vallance made a series of experiments with a view to developing a practical method of producing artificial cold, but his efforts, like those of most pioneers in research fell short of the goal.

In 1834 Jacob Perkins added his experience to the cause with the same result achieved by his predecessors in this line of investigation.

Eleven years later, in 1855, Professor Twining, of New Haven, Conn., achieved the first real success in the line of artificial refrigeration. This was only accomplished, however, after seven years of persistent and intelligent effort. The agent used by Professor Twining was sulphuric acid. He had, as early as 1850, secured results which induced him to patent his process in England, and in 1853 he secured letters-patent in the United States for his ice-making apparatus. It was not until 1855, however, that he made the improvement in his process which enabled him to construct a machine which would really manufacture ice with certainty and regularity. His first machine was erected in Cleveland, Ohio, and had a capacity of 1,600 pounds of ice per day. This machine remained in successful operation until 1857, and the compression principle, now generally used in ice-making and refrigerating processes, was a part of the invention of Professor Twining. This was the real starting point of ice-making and refrigerating machines, although some French inventors had previously produced machines which would, in a limited way and at great cost, produce ice. The credit for the widespread alleviation of the discomfort which humanity suffered prior to the introduction of artificially made ice is due to Professor Twining, and it will be many years before the compression principle used in his machine will be superseded by one more successful. The objection to Professor Twining's process lay in his refrigerating agent, which was dangerous to handle and to operate.

The success attending the efforts of Professor Twining stimulated other scientists to search for a satisfactory agent, and many were tried. Anhydrous sulphurous oxide was the one adopted with great success by Pictet, a French inventor. American chemists, after trying all the known volatile agents with varying degrees of success, united upon anhydrous ammonia as the agent best suited for refrigerating purposes, and

it has been adopted by almost all American inventors with most gratifying results. Once the question of the refrigerating agent was decided, inventors confined their efforts to securing the best results with it, and scores of machines and processes have been invented and patented, any one of which will make ice or refrigerate a cooling-room, but some are more expensive in manufacture than others, while the difference in the running expenses of the various machines is very wide. Each inventor, or manufacturer, claims points of superiority over all his competitors, and the only way of determining the real advantages is by obtaining written statements of the cost of running, and of the machine, for which statements the maker will vouch in the draft of a contract.

Thanks to the genius of Americans, there is a wide range in style and construction of ice-making and refrigerating machines, some of which have a vertical action, while others are driven horizontally. The great majority of the machines are operated on the direct expansion system, but there are several successful exponents of the absorption process. The underlying principle of all is the same—expansion and condensation—the difference being mainly in the method by which the condensation of the gas, after it has performed its cooling function, is brought about.

I will explain these methods somewhat in detail in my next letter.

DIXIE.

THE Old Bay Line, of this city, has let a contract to the Maryland Steel Co. for building an iron passenger and freight steamer of the same general style as the steamer Georgia of this line. The steamer will be 305 feet long, 40 feet beam and 18½ feet hold, with triple compound engine with two low-pressure cylinders. This boat will in all respects be up to the high standard always required by the Old Bay Line. The Maryland Steel Co. is now building a steamer for the Weems Co., of this city, and is to be congratulated upon securing this contract in competition with the big ship-builders of the country. This company is vigorously pushing its ship-yard business, and as it is in better position, on account of having its own furnaces, steel works, rolling mill, etc., than any of the Northern ship-builders, it ought in a few years to outrank even such great ship-builders as the Cramps and others of that character.

THE Merchants' National Bank of Baltimore has purchased one of the best corner lots in the city for \$105,000 on which it will erect a splendid office building to cost from \$200,000 to \$300,000. This bank has an aggregate capital and surplus of \$2,000,000, which is the largest capital of any bank in this city. It is one of the old solid institutions of Baltimore, and the determination of its directors to erect such a building as is proposed will have a great influence upon the community and give increased confidence in the future of Baltimore as one of the great cities of the country, and in the value of its real estate. Baltimore's future outlook was never before so bright as it is at present.

SOUTHERN LOAN BOND INVESTMENTS.

[Under this head the MANUFACTURERS' RECORD will publish announcements, not exceeding ONE DOLLAR, four times free of charge. Only offerings of real estate loans and municipal, county and other bonds, accompanied by specific statement of amount, time, rate of interest and security, will receive free insertions in this column.]

WANTED.-\$5,000 for five years at 7%, secured by first mortgage on a new tannery and 500 acres of valuable lands; also a large stone house and dwellings. Full information on application to L. M. McGLAMERY, Stony Hill, Wilkes county, N. C.

WANTED.-\$5,000 for five years, 6% interest, secured by first mortgage on a well-improved farm, 10 miles from Memphis, Tenn. The farm is paying 20% on \$5,000. Address: G. H. HODGE, 59 Madison street, Memphis, Tenn.

WANTED.-\$20,000 on three to five years' time at 8% per annum. Secured by property in a thriving Georgia city, worth \$40,000. Party worth at least \$50,000. Address: A. J. MCBRIDE, 10 Gate City Bank, Atlanta, Ga.

WANTED.-\$10,000 for one to three years at 8% interest. Security first mortgage on 60 acres of beautiful land at East Lake, Ala., worth \$25,000, and increasing very fast. Dummy farm in Birmingham every 30 minutes. The land lies in the famous Jones Valley. Address: L. P. HILL, Birmingham, Ala. Office over the Post-Office.

WANTED-TENDERS FOR \$50,000 TEN or twenty year gold bonds, 6% interest, payable semi-annually, secured by 4,000 acres very valuable Manganese and Iron Mineral Lands under development in richest section of Virginia; lowest valuation \$50,000; sinking fund provided out of sales of other lands; required for equipment, etc., and erection of furnace to convert ores into manufactured products. Full investigation invited. STANLEY FURNACE & LAND CO., 55 Wall street New York.

\$50,000 6% MUNICIPAL BONDS of the city of Bristol, Va., for sale. Principal and interest payable in gold in New York City. The bonds run for thirty years and the interest is payable semi-annually, issued for building a new schoolhouse, new jail and street improvements. We offer the entire issue, or any part thereof at par and invite correspondence. BRINKLEY & CARRINGTON, Box 35, Bristol, Tenn.

\$10,000 WANTED TWO TO THREE years at 12% interest. Want to erect another plant on pebble phosphate property on Peace River, Florida. Present output 100 tons per day. Desire to increase to 200 tons. Secured on land and plant worth \$50,000. Address "PEACE RIVER," Room 1, Bates Block, Chattanooga, Tenn.

WANTED-\$75,000 AT 10% ON ONE, two and three years' time, to take up options on company's town and mineral property; security, first mortgage. Address PITTSBURG IRON MFG. CO., Pittsburg, Texas.

WANTED-\$100,000 ON FIVE OR TEN years' time, to build 50-ton charcoal furnace at Pittsburg, Texas; 8% interest; security, first mortgage on site and plant. Address PITTSBURG IRON MFG. & INVESTMENT CO., Pittsburg, Texas.

WANTED-\$150,000 ON THIRTY OR fifty years' time, to build and equip railroad 20 miles, from Pittsburg to company's iron ore and timber; 7% interest; security, first mortgage on railroad. &c. Address PITTSBURG IRON MFG. & INVESTMENT CO., Pittsburg, Texas.

WANTED-\$50,000 TO DEVELOP AND operate company's coal mines near Pittsburg, Texas. Ten years' time; 8% interest; security, first mortgage. Address PITTSBURG IRON MFG. & INVESTMENT CO., Pittsburg, Texas.

WANTED-\$1,500 FOR ONE YEAR; will pay \$75 for loan and 7% interest, which is equivalent to 12% for the year; secured by first mortgage on valuable mining property in North Carolina. Address "V," care MANUFACTURERS' RECORD.

LARGE PLACER GOLD MINE FOR SALE.

Situated in Burke County, North Carolina, U. S. A. For printed report on mine apply to

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DANVILLE, VA., U. S. A.

Rolling Mill Engines, Boilers, Trains of Rolls, &c., &c., AT A BARGAIN.

1 each 12, 16 and 18 in. Trains of Rolls.
1 Alligator Shears, 20-in. blade.
Sturtevant Blowers, Scales, Water Boshes.
24x36 Corliss Engine, 300 H. P.
31x31 Bur-Keve Engine, 500 H. P.
80 & 25 Horse High-Speed Electric Light Engines.
10x12 and 10x16 Slide Valve Engines.
4 Steel Rollers 5 ft. x 18 ft.
1 Fire Box Iron Boiler, 5 1/2 ft. x 14 ft.
All 60 H. P. each, first-class Boilers.
1 35 Horse Locomotive Boiler.
1 50-gallon Cameron Pump.
1 No. 7 Dean Pump.
Double Circ'ar Saw Mill.
24x21x5 ft. Planer, &c., &c.

SEND FOR SCHEDULE.

GEO. M. CLAPP, Agent,

74 Cortlandt Street, New York.

PROPOSALS.

MAYOR'S OFFICE,
Vicksburg, Miss., October 15th, 1891.
Sealed proposals for lighting the city of Vicksburg for a period of one, three and five years from January 1st, 1892, will be received at this office until Monday, December 7th, 1891. The bid of gas company to state the candle-power of each lamp, and bids to be made on 100, 125, 150 and 200 lamps for one, three and five years. The bid of electric light company to state the candle power of electric light, and bids to be made on 10, 20, 30, 40 and 50 electric lights for one, three or five years.
K. V. BOOTH, Mayor.

SEALED PROPOSALS will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 2 o'clock P. M. on the 16th day of November, 1891, for all the labor and materials required for Decorative Painting, &c., in the U. S. Postoffice, &c., Building at Lexington, Ky., in accordance with drawings and specification on, copies of which may be had on application at this office or the office of the Custodian at Lexington, Ky. Each bid must be accompanied by a certified check for a sum not less than 2% of the amount of the proposal. The Department will reject all bids received after the time herein stated for opening the same, also bids which do not comply strictly with all the requirements of this invitation. Proposals must be enclosed in envelopes, sealed and marked "Proposal for Decorative Painting, &c., for the U. S. Postoffice, &c., Building at Lexington, Ky.," and addressed to W. J. EDBROOKE, Supervising Architect, October 17, 1891.

SEALED PROPOSALS will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 2 o'clock P. M. on the 2nd day of November, 1891, for all the labor and materials required to furnish and erect complete Three Hydraulic Passenger Elevators, One Hydraulic Mail Lift, including pumps tanks, cars, platforms, piping, etc., for the U. S. Postoffice, &c., Building at Brooklyn, N. Y., in accordance with drawings and specification, copies of which may be had on application at this office or the office of the Superintendent at Brooklyn, N. Y. Each bid must be accompanied by a certified check for a sum not less than 2% of the amount of the proposal. The Department will reject all bids received after the time herein stated for opening the same, also bids which do not comply strictly with all the requirements of this invitation. Proposals must be enclosed in envelopes, sealed and marked "Proposal for Three Hydraulic Passenger Elevators, One Hydraulic Mail Lift, etc., for the U. S. Postoffice, &c., Building at Brooklyn, N. Y.," and addressed to W. J. EDBROOKE, Supervising Architect, October 16, 1891.

SEALED PROPOSALS will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 2 o'clock P. M. on the 5th day of November, 1891, for all the labor and materials required for the approaches to the United States Courthouse and Postoffice at Texarkana, Ark., Texas, in accordance with the drawing and specification, copies of which may be had at this office or the office of the Superintendent, at Texarkana, Ark., Texas. Each bid must be accompanied by a certified check for a sum not less than 2 per cent of the amount of the proposal. The Department will reject all bids received after the time herein stated for opening the same, also bids which do not comply strictly with all the requirements of this invitation. Proposals must be enclosed in envelopes, sealed and marked "Proposal for the Approaches to the United States Courthouse and Postoffice Building at Texarkana, Ark., Texas," and addressed to W. J. EDBROOKE, Supervising Architect October 8 1891.

SEALED PROPOSALS will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 2 o'clock P. M. on the 6th day of November, 1891, for all the labor and materials for fixing in place complete the low-pressure, return circulation, steam-heating and ventilating apparatus for the United States Postoffice Building at Hoboken, New Jersey, in accordance with the drawings and specification, copies of which may be had at this office or the office of the Superintendent, at Hoboken, N. J. Bids will also be considered for any other system of heating and ventilating in lieu of the above, and parties proposing to supply such must submit with their proposal plans and full specification for same. Each bid must be accompanied by a certified check for a sum not less than 2 per cent of the amount of the proposal. The Department will reject all bids received after the time herein stated for opening the same, also bids which do not comply strictly with all the requirements and meaning of this invitation, or for any heating and ventilating apparatus not satisfactory to this Department. Proposals must be enclosed in envelopes, sealed and marked "Proposal for the Low-Pressure, Return Circulation, Steam-Heating and Ventilating Apparatus (or otherwise as the case may be) for the United States Postoffice Building at Hoboken, N. J.," and addressed to W. J. EDBROOKE, Supervising Architect, October 10, 1891.

BIDS FOR ELECTRIC RAILWAY.

Detailed proposals are invited for building and equipping an Electric Street Railway (exclusive of grading) 1 1/2 miles long, in Greensboro, North Carolina. Address

R. M. DOUGLAS, President.

SLACK BARREL STAVE FACTORY FOR SALE.

At Little Rock, Ark., situated on the Arkansas River, and within one block of the Missouri Pacific Railroad System. Has all the order it can fill. Cheap timber, and plenty of it. Satisfactory reason given for selling. Further particulars given by addressing

BROWN & LEWIS,

LITTLE ROCK, ARK.

GOLD MINE.

A loan of \$20,000 wanted to put the necessary machinery on one of the richest free milling quartz mines in California. The money will be refunded in one year. As a bonus, will give one-quarter of the capital stock of the Co. This is a bonanza. No Brokers.

N. K. JOYCE,
168 Washington Street,
CHICAGO, ILL.

Important to All Corporations.

Every Incorporated Company should USE KAUFFMAN'S Copyrighted Forms of Improved Record Book, Transfer Book, Stock Register, Stock Ledger and other valuable Books. Write for Descriptive Circular. Address

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MIDDENDORF, OLIVER & CO. BANKERS AND BROKERS,

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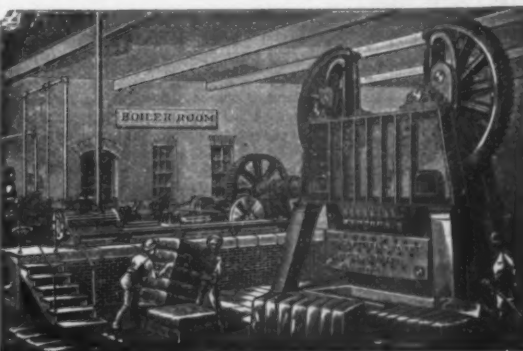
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*Means machinery is wanted, particulars of which will be found in "Machinery Wanted" columns.

✉ In correspondence relating to matters reported in this paper, it will be a favor if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ALABAMA.

Anniston—Iron Furnaces, etc.—The Woodstock Iron Co. has submitted to its stockholders a proposition for a loan of \$2.00 per share to be used in improving and operating its two coke furnaces.

Anniston—Carriage Works.—The Anniston Carriage Works, mentioned last week, will enlarge its plant.

Anniston—Brick Works.—Charles Taylor's Sons have not fully decided to rebuild their brick works, as reported last week, but will not do so at least before next spring.

Attalla—Cotton Compress.—Grant Bros., of Chattanooga, Tenn., have purchased the cotton compress of the Attalla Compress & Fertilizer Co. for \$10,000; will probably operate same.

Attalla—Cotton Mill.—The Attalla Land & Improvement Co. is erecting the cotton mill mentioned last week as let to contract.

Bessemer—Iron Furnace.—The De Bardeleben Coal & Iron Co., having finished the improvements previously reported, has put its King David furnace into blast.

Bessemer—Electric-light Plant.—The Bessemer Electric Co. will repair and put in operation its electric-light plant reported in this issue as damaged by a boiler explosion.

Birmingham—Lumber Mill.—O. B. Heidt and C. C. Heidt, of Selma, have purchased the lumber mill of the Youngblood Lumber Co., at Birmingham, and organized the Heidt Lumber Co., with O. B. Heidt, president; C. C. Heidt, secretary, and William Youngblood, manager, for the purpose of operating same.

Florence—Pump Works and Lumber Mill.—John W. Fry, of Linnville, Tenn., purchased the works of the Serage & Reynolds Pump & Lumber Co., and will, it is stated, operate same.

Florence—Ship-yard.—The American Oak Extract Co. is reported as having established a ship-yard for the building of barges.

Florence—Electric-light Plant.—The Florence Gas, Electric Light & Power Co. is reported as to put a new dynamo in its electric-light plant.

Florence—Iron Furnace.—The Florence Cotton & Iron Co. will shortly put its iron furnace into blast.

Fort Payne.—Negotiations are pending for the sale of the Fort Payne Coal & Iron Co.'s properties, valued at \$2,000,000, to an English syndicate.

Montgomery—Coal Mines, etc.—The Jagger-Townley Coal & Coke Co. will hold a meeting on November 16 to consider the issuance of \$10,000 of bonds.

Opelika—Water Works.—The Opelika Water Works Co. will soon commence work on its water works.

Sheffield Iron Furnaces, etc.—The stockholders of the Sheffield Land, Iron & Coal Co. have ratified the option on its property, mentioned last week, to W. M. Duncan and associates, of Nashville, Tenn. The purchase price is said to be \$770,000. Mr. Duncan and his associates propose to reorganize into the City & Land Co. with a capital stock of \$5,000,000, controlling the city property and mineral land, and the Safe & Trust Co. with a capital stock of \$1,000,000, controlling water works, electric light plant and other unused franchises. The Bank of Commerce is to be included in the latter company.

Talladega—Cotton Mill.—O. J. Hinkley, mentioned last week as having prepared plans for a cotton mill, states: "I have prepared plans for a

3,000 spindle cotton yarn mill to be built here; capital to be raised on installment plan. Steam power—top flat cards, frames or mules, all machinery to be new and improved."

ARKANSAS.

Little Rock—Sewerage System.—The mayor will recommend to the city council a plan for re-sewering the city.

Little Rock—Brewery.—The Tennessee Brewing Co., of Memphis, Tenn., referred to last week, has purchased the arsenal grounds for the purpose of erecting a brewery thereon, but is not yet quite ready to commence building.

Little Rock—Cotton Compress.—W. W. Bierce is investigating with a view of organizing a stock company to erect a \$75,000 Taylor compress in Little Rock.

Little Rock.—A. M. Littlejohn, W. L. Latting and others have incorporated the W. L. Latting Co. for the manufacture of Fuller's earth at Oslen switch. The capital stock is \$50,000.

Little Rock—Pulp Mill.—Emil Bohn, vice-president of the National Fibre Co., of New York, is investigating with a view of erecting in Little Rock a mill for the manufacture of paper pulp from cottonseed hulls.

Pine Bluff—Boiler Works.—Harry Le Laurin, of San Antonio, Texas, is reported as having purchased and as to operate the boiler works of Kirby & Roots.

Sedgewick—Lumber Mill.—The Benjamin Hill Lumber Co. will erect a lumber mill at Sedgewick.

Sherill—Lumber Mill.—The Phoenix Lumber Co. has been incorporated with W. E. Boyington, president; V. P. Atwell, vice-president, and W. E. Fry, secretary. The capital stock is \$100,000.

Stuttgart—Water Works.—The Stuttgart Improvement Co., W. M. Price, vice-president, may construct the water works mentioned recently.

Texarkana—Hardware.—The Texarkana Hardware Co. has been organized with W. B. Kizer, president; J. M. Kizer, vice president, and C. C. Dorrian, secretary. The capital stock is \$20,000.

FLORIDA.

Apalachicola—Canning Factory.—The stock company previously reported as to be incorporated by J. E. Grady and J. H. Gardner for the purpose of erecting a canning factory will be known as the Green Point Canning Co.; charter has been applied for. The capital stock is \$25,000.

Bartow—Electric-light Plant and Water Works.—The Bartow Tube Well Works, mentioned last week as having received franchise, will construct water works and build an electric-light plant.*

Bartow—Phosphate Works.—The Bartow Phosphate Co. has completed its phosphate plant, previously reported, and report says that it will erect another one in the near future.

Bartow—Rice Mill.—The Crooked Lake Co. is reported as to erect a rice mill.

Cedar Keys—Canning Factory.—J. F. McDonell is reported as to establish an oyster-canning factory.

De Land—Ice Factory and Machine Shops.—J. B. Clough has purchased the ice factory and machine shops of A. G. Kingsbury for \$14,350; will doubtless operate same.

Fort Meade—Rice Mill.—The erection of a rice mill is talked of.

Gainesville—Turpentine Stills.—Crawford Bros. are reported as to establish three more turpentine stills in Alachua county.

Green Cove Springs—Water Works.—The stock company lately reported as organized to construct water works will be known as the Mutual Water Co., with J. F. Greed as secretary.

Hillsboro County—Phosphate Mines and Works. F. Lee, J. Strootman and R. Hoffield, of Buffalo, N. Y., have purchased 600 acres of pebble phosphate land in Polk and Hillsboro counties and will organize a company to develop same and erect an extensive plant.

Kissimmee—Saw Mill.—Whitmore Bros. are reported as to erect a saw mill at Edgewater.

Lakeland—Canning Factory and Rice Mill.—The Lakeland Canning, Milling & Manufacturing Co. has erected the rice mill previously mentioned as projected.

Lakeland—Phosphate Works.—B. H. Heyward has, as stated last week, let contract for the erection of phosphate works; the plant will have a daily capacity of 100 tons and is for the Land Pebble Phosphate Co., of which he is the superintendent. P. M. De Leon, of Atlanta, Ga., is president, and L. W. Haskell, of Savannah, Ga., manager of the company.

Milton—Cigar Factory.—John Neabitt, of Pensacola, will, it is reported, organize a stock company for the purpose of starting a cigar factory in Milton.

Palatka—Shingle and Planing Mills.—W. G. Tilghman, H. C. Wilson and J. I. Tilghman have

incorporated the Tilghman-Wilson Co. to operate shingle and planing mills. The capital stock is \$30,000.

St. Augustine—Wood Mill.—William Enslow has, it is stated, purchased and will operate a wood mill.

Tampa—Phosphate Mines and Works.—G. A. Hanson, referred to lately, has succeeded in organizing a company to develop phosphate mines and erect works on Lake Hancock, and will incorporate same as the Lake Hancock Phosphate Co.

Winter Haven—Rice Mill.—The erection of a rice mill is talked of.

GEORGIA.

Atlanta—Bottling Works.—The Atlanta Consolidated Bottling Co. has been incorporated by W. H. Beaumont, J. P. Hagan, H. G. Hanson and others for the purpose of dealing in soda waters, vinegar, cider, &c. The capital stock is \$50,000.

Augusta—Land Improvement.—The Augusta syndicate, reported last week as having purchased 68 lots in Monte Sano for \$20,000, has organized the Monte Sano Co. to improve same. P. M. Mulherin is secretary and treasurer; capital stock \$25,000.

Augusta—Barrel Factory.—A barrel factory will be erected in North Augusta, as stated last week, contract to that effect having been closed with the Tidewater Oil Co.

Augusta—Ice Factory.—An ice factory will be erected in North Augusta, as reported last week.

Broncho—Iron Mine.—Mr. Dixon is reported as developing an iron-ore mine at Dixon's Station.

Buena Vista—Water Works.—The bill to establish a system of water works in Buena Vista, recently mentioned as introduced in the legislature, has passed and been signed by the governor, thus becoming a law.

Cedartown—Electric-light Plant, Water Works and Sewerage.—Hartford, Hebert & Co., of Chattanooga, Tenn., are preparing plans and specifications for the electric-light plant, water works and sewerage system, for construction of which the city was recently reported as to issue \$50,000 of bonds.

Cedartown—Iron Furnaces, Mines, etc.—J. D. Williamson, of Chattanooga, Tenn., is now endeavoring to complete the organization of the Northwest Georgia Iron & Coal Co., recently reported as incorporated, with a capital stock authorized of \$2,000,000. The company owns about 22,000 acres of coal and iron lands which it proposes to develop, erect iron furnaces, etc.

Cedartown—Lumber Mills, etc.—J. D. Williamson, of Chattanooga, Tenn., is now endeavoring to complete the organization of the Carroll Iron, Land & Timber Co., recently reported as incorporated, with a capital stock authorized of \$1,000,000. The company owns 15,000 acres of timber lands which it proposes to develop, erecting lumber mills, etc.

Cedartown—Mineral Lands, Manufactories, etc.—The Fullwood Mineral Springs Co., recently reported as incorporated, has for its president J. C. Harris; for vice-president, J. I. Fullwood, and for secretary, E. B. Russell. The company has a paid-in capital of \$20,000, and proposes to develop its 20,000 acres of mineral lands, erect ore washers, saw and planing mills, etc. J. I. Fullwood is general manager.

Columbus—Sewers.—The matter of the issuance of \$175,000 of bonds for sewers, mentioned last week, is to be decided at an election to be held on the 16th of next January. The mayor can give further particulars.

Covington—Land Improvement.—The land improvement company previously mentioned as being organized has completed its organization, and will be known as the Covington Land & Improvement Co., with L. L. Middlebrook as president, and J. G. Lester, secretary.

Cuthbert—Guano Factory.—A guano factory is reported as to be erected.

Decatur—Iron Furnaces, New Town, etc.—The Interstate Investment & Development Co. has been incorporated at Chattanooga, Tenn., with C. E. King, president; H. F. Starke, vice president, and J. H. Dabney, secretary. This company is reported as having purchased about 400 acres of land near Decatur, and as to improve same by the building of a new town, the erection of furnaces, mills, foundries, etc. The capital stock is \$150,000.

Fort Valley—Electric-light Plant.—The Fort Valley Investment & Improvement Co. will put in an electric-light plant.*

La Fayette—Cotton Mill.—The Union Cotton Mills, previously reported as incorporated to erect a cotton mill, has organized with A. R. Steele, president and general manager, and P. D. Fortune, secretary.

Marietta—Ice Factory, Water Works, etc.—Webster Young, of Cortland, N. Y.; S. C. Phil-

lips and others have incorporated the Marietta Water Works Co. to manufacture ice, deal in real estate, construct water works, etc. The capital stock is \$100,000, with privilege of increasing to \$500,000.

O'Brien (P. O. Bellavista)—Brick Works.—The Altamaha Brick Manufacturing Co. has been incorporated with a capital stock of \$25,000, purchased clay lands at O'Brien, and will establish brick works.

Sumner—Planing Mill and Dry-kiln.—J. W. Price & Co. contemplate the addition of a planing mill and dry-kiln to their lumber mill.

KENTUCKY.

Ashland—Electric-light Plant.—The Ashland Electric Light & Power Co. will put a 750-light Westinghouse incandescent dynamo in its electric-light plant.

Ashland—Fire-brick Works.—The Clinton Fire Brick Co. is rebuilding its works, reported in this issue as burned; will resume operations within 30 days.

Cloverport—Water Works.—The citizens will endeavor to secure the construction of a system of water works. The mayor can give information.

Covington—Planing Mill.—J. A. Brownfield has obtained permit to erect a \$6,000 planing mill. Work on same has commenced, and machinery has been ordered.*

Cynthiana—Furniture Factory.—The John R. Hill Manufacturing Co., of Plain City, Ohio, contemplates establishing a furniture factory in Cynthiana.

Franklin—Woolen Mill.—A woolen mill is reported as to be established.

Henderson—Furniture Factory.—The Audubon Furniture Co. has purchased and will operate the Henderson Furniture Factory, as reported in our last issue.

Louisville—Planing Mill.—M. F. Tyson and E. H. Koch have incorporated the Shelby Street Planing Mill for the purpose of operating a planing mill; authorized capital stock \$10,000.

Maysville—Shoe Factory.—Efforts are being made to organize a stock company for the purpose of establishing a shoe factory.

Middlesborough—Iron Furnace, Water Works, &c.—The Middlesborough Town Co., at a recent meeting held in London, England, decided to push the development of Middlesborough and raised \$1,250,000 for this purpose. These funds are said to be for the purpose of completing the South Boston Iron Works, water works, Davis charcoal furnace and other plants.

Milldale—Land Improvement.—A Covington syndicate has purchased 48 acres of the Taylor estate at Milldale for about \$38,400 and will lay it off into building lots and place same on the market.

Olive Hill—Saw Mill.—Baker & Spitzer are reported as having purchased a tract of timber land on Ben's run and as having established a saw mill to cut the timber.

Owensboro—Coal Mine.—David Stone, of Breckinridge county, is reported as developing a coal mine on the property of G. H. Simmons, near Owensboro.

Paris—Brick Works.—A stock company has, it is stated, been organized for the manufacture of brick.

Petersburg—Brick Works.—J. O. James, of Cincinnati, Ohio, and John McGuire, of Ashland, have, it is stated, purchased a two fifth interest in the brick works of the Forest Dale Fire Brick & Tile Works Co. and will operate same.

LOUISIANA.

De Siard—Cotton Gin.—A. L. Smith will rebuild his cotton gin, recently burned.*

Monroe—Electric Light Plant and Water Works. As stated lately, W. A. Bright has made a proposition to build water works and erect an electric-light plant; work will commence in 30 to 60 days.

Monroe—Cotton Mill.—A cotton mill may possibly be built. For information address W. A. Bright.

New Orleans—Canal Construction.—The city council has adopted an ordinance which provides for culverting the Melpomene and Camp street canals, \$75,000 to be paid in cash as the work progresses, the balance in from one to five years, with 5 per cent. interest.

New Orleans—Manufacturing.—The Mangan Manufacturing Co. has been incorporated with a capital stock of \$100,000 for general manufacturing purposes.

MARYLAND.

Baltimore—Power Plant.—The Baltimore City Passenger Railway Co. has purchased sites for power-houses for its cable roads. J. C. Gott will prepare the plans.

Baltimore—Real Estate.—C. B. Slingluff, Henry Lantz, J. W. Middendorf and others have incor-

porated the E. Hazen Co. for the purpose of dealing in real estate.

Baltimore—Boot and Shoe Factory.—The Baltimore Boot & Shoe Manufacturing Co. has held the meeting recently reported, and decided upon the issuance of \$40,000 of preferred stock.

Baltimore—Maltory.—Francis Denmead, Jr., has succeeded in organizing the \$50,000 stock company to conduct a maltory, recently mentioned, and has, with S. Heildorfer, J. F. Weissen and others, incorporated it as the Denmead Maltory Co.

Baltimore—Improvement Company.—R. O. Crisp, J. C. Linthicum and others have incorporated the Farfield Improvement Co. with a capital stock of \$60,000.

Baltimore—Laud.—C. H. Grasty, James Chamberlain, F. K. Carey and others have incorporated the Kansas City Land Co., of Baltimore, for the purpose of dealing in real estate in Maryland. The capital stock is \$50,000.

Bel Air—Carriage Factory.—John Smith, J. P. Wilson, David Hanway and others have incorporated a stock company for the purpose of operating the carriage factory of John Smith.

Bruceville—Phosphate Mill.—F. Mehning contemplates enlarging his phosphate mill.

Frederick—Creamery.—The Producers & Consumers' Milk Association, of Washington, recently chartered, is investigating with a view of erecting a creamery in Frederick.

Pleasant Hill—Bridge.—A bridge will be constructed over Brown's run, near Pleasant Hill. C. H. Smith, county clerk, can give particulars.

MISSISSIPPI.

Gillsburg—Saw Mill.—S. Reynolds is rebuilding his saw mill, recently burned. Machinery has been purchased.

Greenwood—Stave Factory.—The Schlitz Brewing Co., of Milwaukee, Wis., mentioned last week, will erect at Greenwood a \$40,000 plant for the manufacture of barrel staves, to be operated as the Delta Cooperage Co. Machinery has been purchased.

Meridian—Candy Factory.—The Meridian Candy Manufacturing Co. will at once rebuild its candy factory, reported in this issue as burned.*

Ripley—Shoe Factory.—The capacity of the Ripley shoe factory is reported as to be doubled.

Scranton—Ice Factory.—The Pascagoula Ice Co., mentioned last week as contracting for machinery, was organized by John Foster and others with a capital stock of \$20,000.

Vicksburg—Brewery.—The Vicksburg Brewing Co. has been organized, purchased site and will erect the brewery recently mentioned. It will have a yearly capacity of 50,000 barrels and cost about \$150,000. Robert Ernst, G. W. Wheelless and others are interested.

Vicksburg—Electric-light Plant and Gas Works.—R. V. Booth, mayor, will receive sealed proposals until December 7 for lighting the city with electricity or gas.*

NORTH CAROLINA.

Bryson City—Sash, Door and Blind Factory.—Chattanooga (Tenn.) parties are corresponding relative to the establishment of a sash, door and blind factory in Bryson City.

Elizabeth City—Electric-light Plant.—Chase & Woodward, of Boston, Mass., are reported as to erect an electric-light plant in Elizabeth City.

Fallston—Cotton Mill.—The Fallston Manufacturing Co. states that it expects to erect a cotton mill next year.

Fallston—Cotton Gin and Saw Mill.—The Fallston Manufacturing Co. has erected cotton gin, as stated lately, and will soon add a saw mill.

Greenville—Tobacco Factory.—Endeavors are being made to organize a stock company for the purpose of establishing a smoking tobacco factory.

King's Mountain—Tannery and Collar Factory.—Cansler & Rhyne are reported as to double the capacity of their tannery and collar factory.

King's Mountain—Cotton Mill.—A stock company is reported as being organized for the purpose of erecting another cotton mill.

Monbo—Cotton Mill and Electric-light Plant.—The Monbo Manufacturing Co. has put in an entire new outfit of carding machinery; also an electric-light plant.

Monroe—Cotton Compress.—The erection of a cotton compress is proposed, but as yet it is not decided whether it will be by the Seaboard Air Line or by private parties.

Morganton—Canning Factory.—Contract has been let for the erection of a canning factory in South Morganton.

Mt. Airy—Saw Mill, etc.—R. K. Marshall will erect a saw mill and sash, door and blind factory, as reported in our last issue.*

Norwood—Slate Quarry.—Mr. Williams is reported as to develop his slate quarry near Norwood.

Oxford—Tobacco Factory.—The Granville County Farmers' Alliance Tobacco Manufacturing Co. has increased its capital stock \$10,000.

Rocky Mount—Tobacco Factory.—William A. Cheek, Jr., is reported as having erected a new tobacco factory.

Salisbury—Street Improvements.—N. B. & J. C. McCandless have received contract for street work to cost about \$25,000.

Tillery—Saw and Planing Mill, etc.—The North Carolina Lumber Co., of 92 Reade street, New York city, has purchased the town of Tillery, including tract of land, lumber mill, etc., as reported lately; will erect a new mill and planer and gin mill of modern improvements.

Washington—Rice Mill.—The Carolina Rice Milling Co. has, it is reported, put new machinery in its rice mill.

Washington—Electric-light Plant.—Caleb Sterling will, it is stated, erect an electric-light plant.

Washington—Iron Works.—B. F. Rodman's new iron works, lately reported, will have an increased capacity over the old plant.

Waynesville—Woodworking Factory.—The Waynesville Hard Wood Manufacturing Co., recently reported, is now erecting building for its woodworking factory.

White Plains—Lumber Mills.—J. S. & S. E. Marshall will enlarge their lumber mills.

Wilmington—Package Works.—J. M. King, Jr., has organized the Standard Fruit Package Co. to manufacture his patent fruit package. The capital stock is \$20,000.

Wilmington—Publishing.—J. A. Bonitz, publisher of the Messenger, will put in an improved three revolution press.

SOUTH CAROLINA.

Aiken—Water Works.—The city contemplates the construction of water works, and has J. C. Chase, of Wilmington, N. C., making estimates on cost of same. The mayor can be addressed for particulars.

Anderson—Iron Foundry and Machine Shop.—Thomas Alston, of Charleston, has, it is stated, purchased the iron foundry and machine shop of R. F. Divver at Anderson, and will operate same.

Columbia—Towage.—M. E. and J. A. Hertz have incorporated the White Cross Towage Co. with a capital stock of \$20,000.

Darlington—Cotton Compress.—The Pee Dee Compress Co. has been chartered, erected a cotton compress and put it in operation. W. J. Moorehead is president, and Bright Williams, secretary of the company.

Elko—Canning Factory.—Subscriptions are now being taken for a stock company to erect the canning factory recently mentioned.

Elloree—Flour Mill.—A. L. Ott is reported as to erect a flour mill.

Greenville—Sewerage System.—The sewerage system previously mentioned will doubtless be constructed at an early day. For information address the mayor.

Honea Path—Canning Factory.—A stock company will be organized to erect the canning factory mentioned last week. G. M. Greer can give information.

Piedmont—Cotton Mill.—The Piedmont Manufacturing Co. has increased its capital stock \$200,000, all paid in, and put 25,000 additional spindles in its cotton mill.

Rock Hill—Electric-light Plant.—The Rock Hill Electric Light Co. will put another engine and dynamo in its electric-light plant.

TENNESSEE.

Bristol—Iron Furnace.—The Bristol Steel & Iron Co. is to put its new iron furnace in blast on October 20th.

Bristol—Steel Plant.—J. M. Barker states that the steel plant recently mentioned will be constructed, work on same to commence soon.

Bristol—Handle Factory.—Harrisburg (Pa.) parties are erecting a hickory handle factory.

Bristol—Paving Improvements.—The city is laying 8 miles of granolithic walks.

Chapel Hill—Flour Mill.—Moons & Landis are reported as to erect a roller process flour mill.

Chattanooga—Sewer.—The city is now constructing a 2,800 foot sewer from Maple street to the river at an estimated cost of about \$17,000.

Knoxville—Flour Mill.—The City Mills Co. will put in its flour mill an outfit of new machinery at a cost of \$25,000, thus increasing its capacity from 300 to 600 barrels per day.

Knoxville—Land Improvement.—The Middlebrook Park Association proposes the expenditure of \$100,000 in the improvement and maintenance of Glenwood Park.

Knoxville—Telegraph Line.—A stock company has been organized to construct the telegraph line to Sevierville, mentioned last week. J. R. Maples, Sevierville, can give information.

Knoxville—Gas Works.—J. F. Follette, of Cincinnati, Ohio, will probably erect works in Knoxville for the manufacture of gas by a new process.

Knoxville—Real Estate, etc.—S. B. Luttrell, W. H. Collett, T. A. Weller and others have incorporated the National Co-operative Association for the purpose of dealing in real estate, etc.

Knoxville—Tannic Acid Works.—George O'Berne & Co., of Chicago, Ill., state in reference to the tannic acid works mentioned last week, that they are now negotiating for a site, but as yet no bargain has been closed, but think they will locate the plant in Knoxville.

Knoxville—Furniture Factory.—The Pearce Furniture Co., of Steubenville, Ohio, is in correspondence with W. H. Steward relative to the removal of its furniture factory to Knoxville.

Loudon—Flour Mill.—J. W. Robinson & Co. will, it is reported, erect a roller process flour mill.

Memphis—Bridge.—The city council has adopted a resolution providing for the construction of a \$10,000 iron bridge over Gayoso bayou at Mill street. The mayor can give further particulars.

Memphis—Pulp Mill.—The National Fibre Co., Emil Bohn, vice-president, of New York, proposes to establish in Memphis a mill for the manufacture of pulp from cottonseed hulls at a cost of \$100,000, and negotiations to that effect are now under way with the secretary of the Commercial Association.

Morristown—Water Works.—The Morristown Water Works Co. will probably soon commence the construction of its water works.

Mossy Creek—Furniture Factory.—Mr. Barley, of Toledo, Ohio, is investigating with a view of establishing a furniture factory at Mossy Creek.

Paris—Stave Factory.—A party of Leipsic (Ohio) capitalists are investigating with a view of establishing a slack barrel stave factory in Paris.

Rockwood—Iron Furnace.—The Roane Iron Co., previously reported as developing new coal mines, will, it is stated, erect another iron furnace in the near future.

Shelbyville—Electric-light Plant.—Russells & Eapy are now operating the electric-light plant formerly operated by E. Sheppard.

Spring City—Flour Mill.—Ellis Bradstreet, of Burlington, Ohio, has been investigating with a view to erect a flour mill in Spring City.

Verona—Flour Mill.—Derberry & Co. will, it is stated, erect a roller process flour mill.

Wilhoite—Flour Mill.—John Wilhoite will, it is reported, erect a roller process flour mill.

TEXAS.

Beaumont—Sewerage, Water Works, &c.—The city will issue \$9,000 of bonds for sewerage purposes, \$6,000 for water works extensions and \$5,000 for schoolhouse improvements. For further particulars address the mayor.

Beaumont—Creosote Works.—P. O. Plate, of St. Louis, Mo., is investigating with a view of establishing creosote works in Beaumont.

Bigfoot—Cotton Gin.—Hamilton Bros. will rebuild their cotton gin recently burned.*

Dallas—Publishing.—The German Printing & Publishing Co., reported recently as incorporated, will publish the Nord Texas Press; outfit has been purchased.

Dallas—Refrigerator and Slaughter-house.—The National Butchers' Association, recently referred to, will doubtless erect its refrigerator and slaughter-house in Dallas at a cost of \$500,000. The bonus required from Dallas is \$50,000, to be paid 60 days after the plant is in operation.

De Kalb—Dry-kilns.—The De Kalb Lumber Co. will rebuild its 12 dry-kilns reported last week as burned.

Fort Worth—Furniture Factory.—Eastern parties are in correspondence with the Chamber of Commerce relative to the establishment of a furniture factory in Fort Worth.

Galveston—Pulp Mill.—Emil Bohn, of New York, vice-president of the National Fibre Co., is reported as saying that his company will erect in Galveston a mill for the manufacture of paper pulp from cottonseed hulls.

Gardentown—Sugar Mill, &c.—E. A. Smally is reported as to put in a sugar mill and evaporator.

Giddings—Water Works.—Efforts are being made to organize a stock company for the purpose of constructing a system of water works. For information address the mayor.

Henrietta—Water Works.—H. J. Strickfadden, city secretary, will receive bids for the construction of a system of water works.

Hillsboro—Oil Well.—C. R. Beatty is reported as having sunk an oil well on his property near Hillsboro.

Hitchcock—Artesian Well.—An artesian well has been sunk at Kirkwood, near Hitchcock.

Houston—Sewing-machine Factory.—A Northern party is negotiating for the erection in Houston of a \$250,000 sewing-machine factory. Spencer Hutchins can give information.

Luling—Cottonseed Oil Mill.—The Luling Oil & Cotton Co. has been incorporated to manufacture crude and refined cottonseed oil, etc. The capital stock is \$30,000.

Mangum—Flour Mill.—Efforts are being made for the removal of a flour mill from Fort Worth to Mangum.

Pittsburg—Iron Furnace.—The citizens are endeavoring to secure a bonus required to locate an iron furnace in Pittsburg. The mayor can probably give information.

Sulphur Springs—Car-coupler Works.—J. D. Lundy, of Chicago, Ill.; Rice Harris, of St. Louis, Mo.; J. B. Thomas and others have incorporated the Thomas Car Coupler Co. with a capital stock of \$100,000.

Velasco—Harness and Saddle Factory.—Baileux & Schneider, of Belleville, are reported as to start a harness and saddle factory in Velasco.

Vernon—Cotton Gin.—Jones & Cobb have, it is stated, established a cotton gin.

VIRGINIA.

Alexandria—Furniture Factory.—Ohio parties are endeavoring to secure the purchase of the old Pioneer Mills property from the city for \$5,000 for the purpose of establishing a furniture factory.

Big Island—Pulp and Paper Mill.—The Lynchburg Pulp & Paper Co. is reported as to put new machinery in and otherwise improve its mill at Big Island at a cost of \$60,000.

Fincastle—Spike and Handle Factory.—Rough & Crush are reported as to erect a spike and handle factory.

Fincastle—Marble Quarry.—The Virginia Block Marble Co. has been organized for the purpose of developing marble quarries, &c. The capital stock is \$300,000.

Frederick—Water Works.—The Royal Water Co. has let contract for building the lake and for constructing pipe trenches for its water works, mentioned last week.

Gothen—Electric light and Gas Plants, &c.—The East Side Land Co., lately reported as incorporated, has for its object the erection of electric-light and gas plants, etc. The capital stock is \$25,000.

Haymarket—Coal and Iron Mines.—The Bull Run Coal & Iron Development Co. has commenced the development of its coal and iron mines near Kinsey's Mills, as stated last week; outfit has been purchased. For further particulars address Albert Fletcher, president, Warrenton.

Lynchburg—Bark Mill.—J. H. Heald & Co. will rebuild at a cost of about \$25,000 their bark mill, reported last week as burned.

Manchester—Sewerage System.—The city council has adopted a resolution providing for the issuance of the \$75,000 of bonds for the construction of the sewerage system lately mentioned. For information address the mayor.

Max Meadows—Rolling Mill.—The Alex. K. Rarig Co., of Buena Vista, has, as stated last week (under Virginia), received contract to supply machinery for rolling mill; it will be built at Max Meadows for the Crescent Horse Shoe & Iron Co.

Morrisville—Gold Mine.—Work has commenced at the Franklin gold mine, as reported last week.

Newport News—Knitting Mill.—The Board of Trade is negotiating with McLaughlin, Condon & Co., of Schenectady, N. Y., looking to the removal of the company's knitting mill to Newport News.

Portsmouth—Real Estate, Wharves, &c.—The Portsmouth Wharf & Warehouse Co. has been incorporated with Henry Kirn, president; W. B. Carney, vice-president, and F. E. Wilcox, secretary, to purchase and improve real estate, construct wharves, bridges, etc. The capital stock is to be not less than \$25,000 nor more than \$200,000.

Pulaski—Electric-light Plant and Water Works.—J. H. Dingee, J. M. Wirgman, of Philadelphia, Pa.; H. Alexander and others have incorporated the Pulaski Electric Light & Water Co. with a capital stock of \$25,000.

Pulaski—Electric Plant.—J. R. Miller, J. W. Lyons, R. E. Watson and others have incorporated the Pulaski Electric Co. with a capital stock of \$25,000.

Radford—Sash, Door and Blind Factory.—D. V. Sturdevant and others have purchased and will operate the Sturdevant-French Manufacturing Co.'s sash, door and blind factory.

Richmond—Wagon Factory.—The Richmond Wagon Manufacturing Co., reported last week as incorporated, etc., will manufacture a variety in short turning vehicles. L. M. Blanton is secretary.*

Richmond—Ice machine Works.—The Richmond Ice Machine Co. will issue about \$7,000 of additional stock to adjust its finances and continue the operation of its ice-machine works.

Roanoke—Iron Works.—The Cushman Iron Co. has been incorporated with C. G. Cushman, president; John Bird, second vice-president, and A. J. Coffin, secretary, to build works for the manufacture of ornamental and builders' wrought and cast iron, such as iron fences, bridge railings, fire escapes, etc. The capital stock is to be not less than \$15,000 nor more than \$50,000.*

Roanoke—Land Improvement and New Industries.—The Columbia Land Co. has, as reported last week, purchased 228 acres of the Francis Board property, near Roanoke, and will erect six or eight industries thereon. H. W. Fry, secretary, can be addressed for information.

Roanoke—Street Improvements.—Contract for macadamizing about seven miles of streets has been let to W. F. Pattison, of Kenova, W. Va. The work is to be completed in four months and will cost \$25,000.

Salem—Iron Foundry.—C. B. Gravelly, of Henry county, is reported as to establish an iron foundry in Salem.

Stanley—Iron Mines.—The Crescent Iron Co., incorporated with Frank R. Biedler, of Baltimore, Md., president; Thomas Wallace, of Ansonia, Conn., vice president, and R. C. Getz, secretary, has for its purpose the development of 125 acres of iron ore land in Page county. The capital stock is \$500,000.

Wytheville—Foundry and Machine Shops.—The Wytheville Foundry & Machine Co. has been incorporated with R. E. Withers, Jr., as secretary, to erect foundry and plow works. Buildings are now being erected. A general foundry business will be conducted and agricultural implements, mining, milling and other machinery manufactured.

WEST VIRGINIA.

Charleston—Land Improvement.—I. Schwabe, L. Schwartz, John Allemen and others have incorporated the Glenwood Heights Co. for the purpose of developing Glenwood Heights, near Charleston. The capital stock is to be not more than \$50,000.

Payette County—Coal Mines, &c.—F. Howald and John Laing, of Rush Run; H. W. Henry, of Staunton, Va., and others have incorporated the Red Ash Coal Co. to manufacture coal, coke, etc. The capital stock is \$100,000.

Harrisville—Oil Wells.—The Keystone Oil & Gas Co. will at once sink two oil wells at Harrisville.

Harrisville—Oil Wells.—A. J. Patton, W. H. Pierpoint, J. M. Hall and others are making arrangements for the incorporation of a stock company to sink oil wells at Harrisville.

Harrisville—Flour Mill.—The Keystone Oil & Gas Co. states that a roller process flour mill will be started at once.

Henry—Coal Mines.—H. G. Davis, of Baltimore, Md.; S. B. Elkins, of Elkins, and others have incorporated the Henry Coal & Coke Co. with a capital stock of not more than \$500,000.

Martinsburg—Steam Laundry.—The \$100,000 stock company reported in our last issue as organized by S. W. Walker and others to erect a steam laundry has been incorporated as the Martinsburg Steam Laundry.

Monongah—Bridge.—The county court and the Monongah Coal & Coke Co. have jointly let contract at \$12,750 to the Canton Wrought Iron Bridge Co., of Canton, Ohio, for the construction of an iron bridge 425 feet long across Coal run.

Parkersburg—Lumber Mill.—Wm. Kirk has put several new machines in his South Side Mills, increasing their capacity.

Parkersburg—Publishing, &c.—Robert McE Downey, G. W. Tavenner, T. E. Quinn and others have incorporated the Parkersburg Sentinel Co. to publish a daily and weekly newspaper, etc. The capital stock is to be not less than \$5,000 nor more than \$20,000.

Point Pleasant—Electric-light Plant.—Mr. Snyder is reported as to put a new engine and dynamo in his electric-light plant.

Roaring Creek—Coal Mines.—Henry G. Davis, of Baltimore, Md., and others have organized at Elkins the Randolph Coal Co. for the purpose of developing coal mines at Roaring Creek.

Roaring Creek—Lumber Boom.—John D. Skiles and W. F. Diller, of Lancaster, Pa., and others have incorporated the Cassidy Fork Boom & Lumber Co. to construct a boom at the mouth of Middle Fork river, in Randolph county; office at Roaring Creek. The capital stock is \$150,000.

Wellsburg—Glass Works.—The Eagle Glass Works are being improved by the addition of a 12-pot furnace.

Wheeling—Lantern, Lamp and Glass Works, &c.—The Nail City Lantern Co. and the Wheeling Samping Co. have consolidated, as stated recently in these columns, and will operate under the charter of the Nail City Stamping Co., reported last week as incorporated. New building 66x125 feet will be erected and \$100,000 of stock issued. The company also controls the Eagle Glass Works at Wellsburg. (See Wellsburg.)

Wheeling—Lath Mill, &c.—Walter Bostwick, of New York; R. G. Sykes, of Niles, Ohio; John H. Hobbs and others have incorporated the Bostwick Fire Proof Steel Lath Co. to manufacture the Bostwick patent lath and other kind of metallic work. The capital stock is to be not more than \$100,000.

Wellsburg—Electric light Plant.—The Wellsburg Electric Light, Heat & Power Co. will put in a new dynamo, as reported last week; also a new 50 horse-power engine.

BURNED

Ashland, Ky.—The brick works of the Clinton Fire Brick Co.

Bessemer, Ala.—The electric-light plant of the Bessemer Electric Co. damaged by a boiler explosion.

Churchville, Md.—The carriage factory of James H. Reynolds.

Cottondale, Ala.—The saw mill, grist mill and cotton gin of William and Marion Smiley.

Covington, Ky.—The tannery of H. R. Deglew; loss \$5,000.

Dunwiddie C. H., Va.—The grist mill of Alfred Green in Dinwiddie county.

Dyersburg, Tenn.—The cotton gin, office building and seedhouse of the Dyersburg Oil & Fertilizer Co.; loss estimated at \$30,000.

Freeman, Texas.—The mill of Jefferson & Co.; loss \$10,000.

Macon, Ga.—The Perfection fire kindler factory of Edward Artope and John Flynn.

Mechanicstown, Md.—The roller process flour mill of John Jones; loss \$5,000.

Meridian, Miss.—The candy factory of the Meridian Candy Manufacturing Co.

Nacogdoches, Texas.—The McWinstone saw mill.

Nacogdoches, Texas.—The saw mill of J. M. McCuistian & Bro., near Nacogdoches.

Nashville, Tenn.—The dryhouse of Mr. Sewell's tobacco factory.

Nashville, Tenn.—The American Building; loss \$10,000.

Oakdale, Tenn.—The Oakdale Hotel; loss \$15,000.

Paris, Ky.—The tobacco factory of J. M. Thomas & Sons.

Par's, Ky.—The carriage factory of Bensley & Shackelford; loss \$20,000.

Pine Bluff, Ark.—The boiler works of Sweeney & Cahill; loss \$5,000.

Princeton, Ky.—The flour mill of R. U. Kevil & Co.

Princeton, Ky.—The saw and planing mill of Tucker Bros.

Queen City, Texas.—The dry kiln and planing mill of the Queen City Lumber Co.; loss \$20,000.

Roanoke, Va.—The planing mill of Bush & Carmer; loss \$30,000.

Rowland, Ala.—The saw mill of Mr. Dickenson damaged by boiler explosion.

Salem, Va.—The Salem Mineral Fibre Co.'s mineral fibre factory; loss \$5,000.

Starkville, Miss.—The saw mill of J. A. Bell, near Starkville.

Sulphur Springs, Texas.—The saw mill of the Sulphur Springs Lumber Co.; loss \$13,000.

Tuscaloosa, Ala.—The Tuscaloosa Cotton Mills damaged by fire.

Washington County, Md.—The building of the Willow Grove Creamery; loss \$6,000.

The cotton gins of J. M. Horton, at Benjestown, near Memphis, Tenn.—loss about \$5,000; Turner McGahee, at Paris, Ga.; W. B. Owen and W. M. Gray in Laurens county, S. C.; Walter Boatright, near Cleburne, Texas; Mr. Graves, at Petty, Texas; the Alliance gin, at Fulbright, Texas; Davis & Davis, at Ravenna, Texas—loss \$5,000; Doty & Giles, near Bonham, Texas; V. C. Edmondson, near Waxahachie, Texas; A. W. Swell & Co., McGregor, Texas—loss \$8,000; Mr. Sheppard, Greensboro, Ala.; I. A. Elliott, Greensboro, Ala.; C. T. Blassingame, Roberta, Ga.; McMillen & Co., near Vicksburg, Miss; Thomas Bugg, in Harris county, Ga.; J. A. Knight, Midland, Ga.; J. D. Snodgrass, Scotsboro, Ala.

Building Notes.

Americus, Ga.—A branch of the People's Building & Savings Association of Geneva, N. Y., is being organized in Americus.

Aransas Pass, Texas—Hotel.—James C. Fulton reports that arrangements have been perfected for the construction of a three-story hotel at the new resort, Ocean View, six miles from Aransas Pass. The hotel will be supplied with all modern appliances.

Atlanta, Ga.—Depot.—It is stated that plans and specifications have been completed for the erection in Atlanta of the union depot for the Richmond & Danville Railroad Co. (office, Richmond, Va.), Georgia Pacific Railroad (office, Birmingham, Ala.) and the East Tennessee, Virginia & Georgia Railroad (office, Knoxville).

Atlanta, Ga.—Hotel.—Work has been commenced on the hotel previously reported as to be built by G. W. Collier. It is to be six stories, 104x160 feet.

Augusta, Ga.—Warehouse.—The Standard Oil Co. will build a warehouse in North Augusta.

Augusta, Ga.—T. O. Brown and T. J. Daly have been awarded contract for the erection of a three-story brick building for David Slusky. The estimated cost is \$9,000.

Augusta, Ga.—Armory.—L. F. Goodrich has prepared plans for the building of a large armory in Augusta. This is probably for the Oglethorpe Armory Association, previously referred to.

Baltimore, Md.—E. L. Oster will erect a two-story brick building; A. D. Clements, 12 cottages; John Jacobs, a three-story brick building; P. Matthews, 2 two-story brick buildings; J. Gallagher, 2 two-story brick buildings; F. T. Anderson, four-story brick building, and Christine Bunker, a two-story brick building.

Baltimore, Md.—Warehouses.—A. C. Meyer will erect a seven-story warehouse on Lombard street, and F. Megenhardt a three-story brick warehouse on Pratt street.

Baltimore, Md.—Bank Building.—The Merchants' National Bank will erect a seven or eight-story building 50x106 feet to cost about \$300,000.

Baltimore, Md.—College.—The Baltimore Medical College will erect a building on Howard street.

Bartow, Fla.—Churches.—The Baptists and Reformed Presbyterians are reported as to build churches.

Bedford City, Va.—Stephen Holland and Jeter & McGhee will each erect a store building.

Bedford City, Va.—W. F. Fisher reports that three new brick store buildings are to be erected at once.

Birmingham, Ala.—Jail.—Architect Wheelock has submitted an estimate for remodeling the old jail building at a cost of from \$12,000 to \$15,000.

Blowing Rock, N. C.—Church, &c.—Charles C. Hook, of Charlotte, has prepared plans for the erection of a church for the Episcopalians, and of a residence for F. B. McDowell, of Charlotte.

Brevard, N. C.—Church.—James Williams, of Puella, has secured contract for the erection of a church for the Baptists.

Bristol, Tenn.—Warehouse.—A. S. McNeil, lately referred to, will build at Bristol, Va., a three-story warehouse, 30x110 feet, to cost about \$7,500.

Bryan, Texas—Courthouse.—Brazos county will probably build a courthouse in Bryan. The county clerk can give information.

Buchanan, Ga.—Church.—The Baptists contemplate building a church.

Camden, S. C.—Warehouse.—The Clyde Steamship Co. contemplates building a warehouse.

Charleston, S. C.—A branch of the Eastern Building & Loan Association of Syracuse, N. Y., has been organized with A. W. Taylor, president, and J. T. Burdell, secretary.

Charleston, W. Va.—Bank Building.—The Kanawha Valley Bank is reported as to erect a building.

Charleston, W. Va.—Temple.—Plans have been prepared for the erection of a temple for the Masons.

Charlotte, N. C.—Charles C. Hook has prepared plans for a residence for S. Wittkowsky.

Covington, Ky.—Temple.—The Knights of Pythias contemplate building a temple.

Crowley, La.—Church.—The Catholics are reported as to build a church.

Erwin, Tenn.—Warehouse.—The building of a tobacco warehouse is proposed.

Fayetteville, N. C.—Hotel.—The Cumberland Co., of which John C. Gittings, of Baltimore, is president, and Dr. H. W. Lilly, of Fayetteville, vice-president, intends building a hotel.

Grayson, Ky.—College.—The erection of a \$9,000 college building is contemplated. A. T. Wilhoit, mayor, can give information.

Greenville, N. C.—The Mountain City Land & Improvement Co., which lately increased its capital stock from \$12,000 to \$100,000, is privileged to build houses.

Haskell, Texas—Courthouse.—It is stated that Haskell county contemplates erecting a \$60,000 courthouse in Haskell. The county clerk can give information.

Henderson, N. C.—A branch of the Covenant Building & Loan Association of Knoxville, Tenn., has been organized with Louis Ulrich, president, and Asa Farrar, treasurer.

Henderson, Ky.—H. Kleymeyer and others, referred to in last issue, will erect 3 two-story business houses.

Houston, Texas—Office Building.—T. J. Hurley, of Fort Worth, has submitted a proposition to the citizens of Houston to erect the eighty-story office building, previously reported, at an estimated cost of \$200,000.

Jackson, Miss.—Opera-house.—The building of an opera-house is contemplated.

Jacksonville, Fla.—A. E. McClure is preparing plans for the erection of the building lately reported for S. B. Hubbard. It is to be four or five stories, 107½x120 feet, and is to have an electric elevator.

Johnson City, Tenn.—William Harr has awarded contract for the erection of the two-story business building referred to in last issue. It will cost \$5,000.

Kingston, N. C.—Church.—The Disciples will build a church, as stated in last issue. Rev J. J. Harper, of Smithfield, N. C., can give particulars.

Knoxville, Tenn.—School Building.—The erection of a new building for the Park Street School is proposed. The mayor can give information.

Knoxville, Tenn.—Sanitarium, etc.—The erection of a sanitarium and college building for females at Middlebrook Park is proposed. The Middlebrook Park Co. can give information.

Ladonia, Texas—School Building.—The school building lately mentioned will be erected at a cost of \$10,000. William Harkins, mayor, can give particulars.

La Grange, Ga.—Jail.—Troup county will let contract November 20 for erecting a jail building. The county clerk can be addressed.

Lawrenceburg, Ky.—Church.—The Methodists intend to build a church 60x40 feet.

Little Rock, Ark.—Architect Kusener is preparing plans for the erection of a \$12,000 residence for W. E. Green.

Little Rock, Ark.—City Hall, etc.—The erection of a city hall and jail building is contemplated. The mayor can give information.

Little Rock, Ark.—School Building.—W. D. Holzman has secured contract at \$10,405 for building the stone foundation for the Twenty-first street school building, recently mentioned.

Lynchburg, Va.—Robinson, Tate & Co. are erecting a three-story business building, 40x80 feet. W. B. Snead & Co. have the contract.

Macon, Ga.—Hotel.—H. S. Morse, I. D. Crawford, S. Altmayer and others have, it is stated, purchased the Hotel Lanier and will make extensive improvements.

Memphis, Tenn.—Engine house.—D. D. Thomas has secured contract at \$16,915 for the erection of the engine-house lately reported. Architect Wheeler prepared the plans.

Memphis, Texas—Courthouse and Jail.—Hall county is building the jail and sheriff's residence lately referred to at a cost of \$11,000, and will soon commence building a \$35,000 courthouse. S. A. Simpson can give particulars.

Memphis, Texas.—J. R. and B. Jones have awarded contract for the erection of a business house, and J. A. Montgomery will erect a similar structure.

Monroe, La.—Hotel.—A 75-room hotel will be built. W. A. Bright can give particulars.

Muenster, Texas—Church.—L. O. Williams, of Gainesville, has secured contract at \$7,000 for building the edifice lately noted for the Catholics. J. J. Kane & Son, of Fort Worth, furnished the plans.

New Orleans, La.—School Building.—A new school building will probably be erected for the McDonough School. The mayor can give particulars.

Newport, Ark.—Warehouse.—C. B. Slagle, of Little Rock, has been awarded contract for the erection of a warehouse for the Water Pierce Oil Co.

Newport News, Va.—It is stated that T. H. Gordon will erect a three-story building 50x90 feet; A. D. Wallace is preparing plans for the erection of a two-story building 75 feet deep for a Pennsylvania party; A. H. Weaver, of Pittsburgh, Pa., a three-story brick building, and John Klotz a three-story brick building 90 feet deep.

Newport News, Va.—Pennsylvania parties will erect three dwellings in Newport News. W. E. Barrett & Co. can give particulars.

Ocala, Fla.—Hotel.—The Ocala Co. will build an addition and another story to the Ocala House. An elevator and other conveniences will be put in.

Owensboro, Ky.—Theatre.—The Temple Theatre, reported in last issue as burned, will be rebuilt at a cost of about \$50,000. A. G. Sweeney can be addressed.

Oxford, N. C.—Courthouse.—Hundley Bros. have secured contract at \$6,300 for the improvement of the Granville county courthouse, lately reported.

Quannah, Texas—Bank Building.—The City National Bank, lately referred to, will erect a \$15,000 building at once.

Quintana, Texas—Church.—Clifford & Harmon are preparing plans for the erection of a church 36x50 feet for the Methodists.

Radford, Va.—Fortune & Dudley have been awarded contract for the erection of a residence for J. D. Noble, of Dublin, Va., to cost between \$5,000 and \$5,500.

Richmond, Va.—Edgerton Rogers has prepared plans for the erection of a four-story building 49½x110 feet for P. H. Mayo.

Rocky Mount, N. C.—A Mr. Dunkel is reported as having awarded contract for the erection of a block of brick stores.

Rome, Ga.—Hotel.—It is stated that Hugh T. Inman will erect a four-story hotel to cost between \$50,000 and \$75,000.

Trinity College, N. C.—The estimated cost of the hotel previously reported as to be built at Trinity College is \$30,000. It will contain 100 rooms.

Washington, D. C.—T. F. Schneider will erect 8 residences to cost \$60,000; A. D. Hazen, 3 dwellings, and B. H. Warder, 5 dwellings to cost \$18,000.

Washington, D. C.—Church.—The members of the Church of the Holy Name will erect an edifice.

Weatherford, Texas—College.—It is reported that a three-story addition will be built to Weatherford College.

Wheeling, W. Va.—E. B. Franzheim has prepared plans for the erection of a three-story rectory for St. Matthew's Episcopal Church to cost about \$10,000.

Wheeling, W. Va.—W. J. Bates contemplates building a three-story brick dwelling.

THE EL DORADO OF WEST VIRGINIA.

[Written for the MANUFACTURERS' RECORD by THOMAS P. GRASTY.]

The region opened up by the Camden system of railways in West Virginia is one of the most resourceful in the world. Until recently it has been for the most part inaccessible. It is a region rich in coal and timber; and so soon as the timber is cut blue-grass grows as in Central Kentucky. Indeed, this is the country to which Governor Fleming referred when he said in a public address that there was a larger blue-grass region in West Virginia than in Kentucky.

During the past few days I have been making some preliminary explorations in this wonderful area, and in order to give the public a general idea of where the Camden lines run, will now write a sort of preface to a comprehensive and copiously illustrated article which I have arranged to bring out so soon as the maps and wood cuts can be prepared. By reference to the accompanying map the reader will observe a line of rail from Pittsburgh to Uniontown, which is owned by the Baltimore & Ohio Co. From Uniontown, Pa., to Morgantown, W. Va., is shown a missing link of about 25 miles in the Baltimore & Ohio's lines to Pittsburgh, which, however, is now under contract, and when completed will connect Pittsburgh by the Baltimore & Ohio's lines with the West Virginia roads. From Morgantown the Baltimore & Ohio has in operation a line to Fairmont, and at Fairmont begins the Camden system of West Virginia. The first section of the system is known as the Monongahela River Railroad, and runs up the west fork of that stream 33 miles to Clarksburg, where it joins the West Virginia & Pittsburgh, which thence goes on to meet the Chesapeake & Ohio on the Greenbrier river. But the West Virginia & Pittsburgh forks at Weston, one branch going up by way of Buckhannon into a mighty forest, which it penetrates as far as a place called Pickens, in Randolph county. For convenience let us call this the Buckhannon River branch.

It will be a good plan to consider the different sections of the system one at a time; so we must go back to Fairmont and begin with the Monongahela River Railroad, which opens to the world a field of coking, gas and fuel coal that has no superior in the United States. The feature of the field is the great Pittsburgh seam, which is here remarkable by reason of its extent, its uniformity, its thickness, the facility with which it may be mined. The face of the vein is exposed above water level, with good drainage, continuously from one end of the road to the other. At Monongahela, five miles above Fairmont, the Monongahela Coal & Coke Co. has in operation one of the largest and most complete plants to be found in any coal region. It has been pronounced by Pennsylvania operators to be a model plant. Here the coal is mined by machinery, the motive power being electricity, by which also the mines are lighted up. Here 350 coke ovens with lurid light dispel night's gloom from the blue-grass carpets which cover Monongahela's hills and slopes. This plant has capacity to mine 3,000 tons of coal a day, and may be duplicated profitably every mile or two along the line.

At Clarksburg we strike the next link in the chain, called by a name which soon or late will probably be applied to all the line from Pittsburgh to the great iron ore fields of Potts creek in old Virginia; that is to say, the West Virginia & Pittsburgh Railroad. This road, like the Monongahela River line, continues up the west fork to Weston, where it branches. The town of Weston is the county seat of Lewis county, and is an old-fashioned place of some thrift and much ante-bellum reputation. It is the site of a fine hospital for the insane,

built of blue sandstone, which was begun with appropriations from the State of Virginia before the war. Going up the Buckhannon River branch we soon come to the fast-growing town of that name, the county seat of Upshur county, which has several large educational institutions. It is destined to become a manufacturing point of considerable importance, for above it extends a magnificent timber country, where hard woods abound, and which, as one may see by traveling up the railroad, is being rapidly developed, there being at Alexander a lumber mill which cost \$200,000. At Newlon, which is 42 miles above Wes-

ton, there is enough timber in the territory tributary to this branch of the West Virginia & Pittsburgh to insure an enormous traffic to the road for at least a generation. So much for the Buckhannon River branch.

Now, coming back to Weston, we will go up the main line, which, when it connects with the Chesapeake & Ohio at Marlinton (heretofore called Marlin's Bottom) on the Greenbrier river, will form a portion of a great north and south trunk line which will bring Pittsburgh 200 miles closer to the mineral regions of Virginia than by any existing route. A ride of 40 miles through a fairly improved country, whose little farms are like islands in an ocean of timber, brings us to Braxton Courthouse, or Sutton, on Elk river, a

primeval forest and underlaid largely with what Prof. I. C. White, of the West Virginia University, and Major Jed Hotchkiss agree in pronouncing a continuation of the Pocahontas (Flat Top) and New River coking measures.

This immense forest is composed of the various varieties of oak and of poplar, a large percentage of which averages from 4 to 6 feet in diameter, and wild cherries from 3 to 4 feet in diameter, and ash trees almost equal in size to the poplars, black birch from 2 to 3 feet in diameter, besides spruce and hemlock, hard and soft maples, cucumber, linn, red beech, etc. The black birch, which is very abundant, is said to be preferable to cherry as a hardwood, being susceptible of a higher polish. The oaks are found mainly on the lower elevations, but as you ascend toward the divide between the Gauley and the Greenbrier you will enter stretches of spruce (locally known as yew pine), the ground beneath which is never reached by a ray of sun or moon.

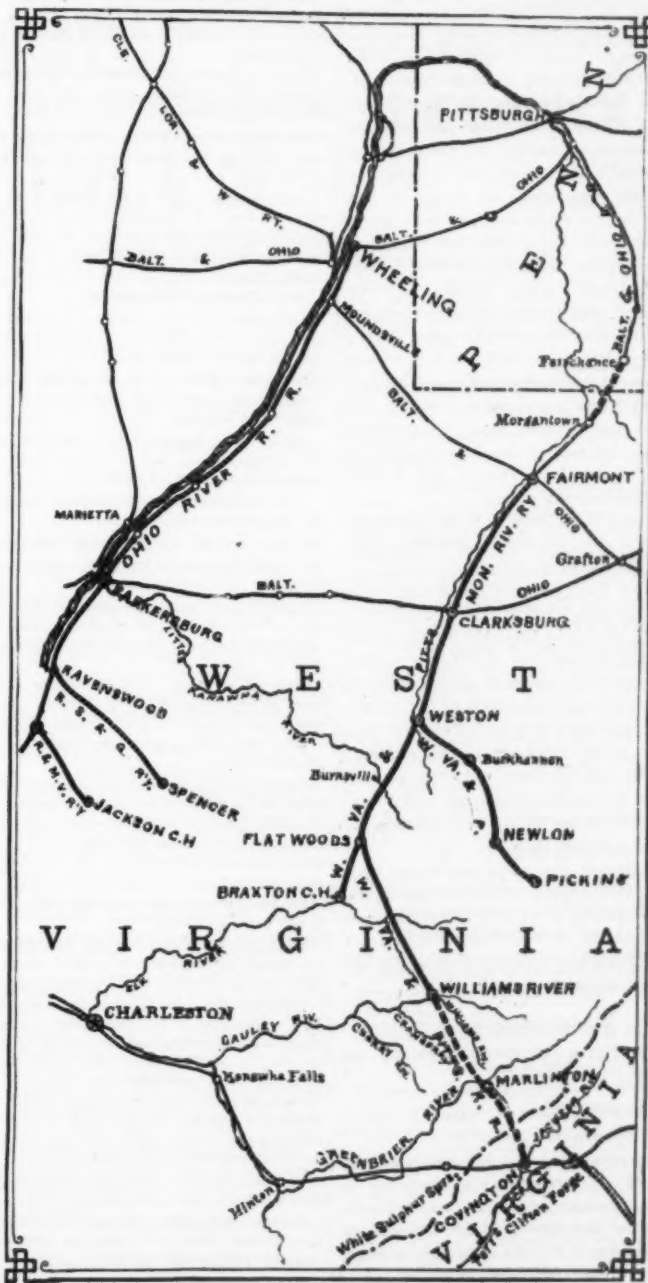
But there is no room in this preliminary sketch for more than a mere suggestion of the extent and quality of the timber body and coal field of the Gauley drainage. A virgin forest of 500 square miles or more, of which the West Virginia & Pittsburgh Railroad Co. owns about 250 square miles in a compact belt, extends for 40 miles between the Gauley and Greenbrier, covering the drainages of the Williams, Cranberry and Cherry rivers, which reach up close to the Greenbrier on the southeast. There is scarcely a settler or squatter in this whole area, which is traversed only by bridle-paths and "trails" originally engineered by the elk and buffalo, which they say abounded here as late as 100 years ago. So soon as clearings are made a luxurious growth of blue-grass covers the face of the earth spontaneously, as in Fayette and Woodford counties in Kentucky.

How extraordinary that such a region, lying in the very heart of cis-Mississippi civilization, should have remained so long a trackless wilderness! It might have remained so still longer but for the energy and sagacity of John N. Camden, which have been worth millions and millions of dollars to the State of West Virginia, and whose plans for the development of the Potts creek iron ore region will also add many millions to the material wealth of the "Old Dominion." "But," as Rudyard Kipling has a trick of putting it, "that is another story."

At the point on the Gauley to which the West Virginia & Pittsburgh is now graded is a natural town-site, where is being built the railroad company's already famous 50,000,000-foot-a-year lumber plant. This is at Lane's Bottom, in Webster county, but the new town will be called by some other name, possibly Camden. On account of the steepness of the banks of the Gauley river, available town-sites are few and far between, and this point is therefore one which it is worth while for manufacturers using wood as the main raw material to keep an eye upon. Here a large dam is being built with heavy boom piers to catch and hold the timber which will be floated down the Gauley and its tributaries. There are now 200 men at work on this enterprise. In addition to its own lumber plants, the railroad company will encourage the building of pulp mills, tanneries, furniture factories and the like.

There is here a convenient supply of both hemlock and oak barks for tanneries; while, with an abundance of spruce, linn, poplar and other soft woods, with plenty of pure water, the facilities for making wood pulp are unrivalled. Referring again to the great saw mill, I was informed that the railroad company can take from its own land 50,000,000 feet a year for 30 years, and by that time the first cutting will be replenished with second growths.

Appropos of new towns, one of the most



ton and only 25 miles above Buckhannon, begins an almost unbroken forest, which extends to Elk river, a distance of 35 miles. Coal veins of fine quality are found along the line above Buckhannon to Pickens, nine miles above Newlon, where this branch will have its terminus, but whence timber roads will reach out in various directions. Near Pickens, which is on the divide between the waters of the Buckhannon and Tygart's Valley rivers on the north and the Elk and Holly on the south, one may stand at the foot of a wild-cherry tree five feet in diameter and towering 80 feet before the first limb appears, on an elevation called "Turkey Bone," and behold stretching southward a houseless, roadless, almost pathless forest of at least 50,000 acres, which has never been touched

by the woodman's axe. There is enough timber in the territory tributary to this branch of the West Virginia & Pittsburgh to insure an enormous traffic to the road for at least a generation. So much for the Buckhannon River branch.

At Sutton several large lumber plants have been established during the past year.

At present trains go no further than this point, but the road-bed and masonry are finished as far as the Gauley river, upon which a portion of the track is now being laid, but the road will not be open to traffic to the Gauley until next spring. Beginning at the crossing of Elk river, and reaching on, across and up Gauley, all the way to the Greenbrier river, is found one of the most wonderful areas east of the Mississippi, covered with a vast

inviting locations that I know of is the point on the Greenbrier river where the West Virginia & Pittsburg meets the Chesapeake & Ohio. To this point from the Gauley river, a distance of only 34 miles, the final surveys have been made and the road is ready to be let to contract. The site of the new town is now known as Marlin's Bottom, and a vote has been ordered in Pocahontas county on the question of moving the county seat thither. I did not see the place, but am told that it is a beautiful location.

Besides being on the outskirts of a great timber and coal field, it is adjacent to what is supposed to be good iron ore, in both the Oriskany and Clinton formations of the Allegheny mountains. I am informed, moreover, that the Chesapeake & Ohio Co. are now having a portion of this alleged ore region exploited under the direction of Mr. Langdon, the geologist. "But that is another story."

The junction at Marlinton is the result of an agreement between the management of the West Virginia & Pittsburg Railroad and that of the Chesapeake & Ohio. The latter road has about 25 miles yet to build from its Warm Springs extension, and the West Virginia & Pittsburg, as has been stated, 34 miles besides what is now ready for track-laying, in order to complete the connection from Pittsburg, in Pennsylvania, through the center of West Virginia to Covington. Much of this intervening country, now a wilderness, will, so soon as the connection is made, become the scene of industrial developments on a scale seldom witnessed in this country.

I asked Mr. Camden about the road up Potts creek to open the 60,000 acres of strictly mineral lands owned by a syndicate of which he is a member. "That," he replied, "will be an independent road with equal advantages to the Chesapeake & Ohio and the West Virginia & Pittsburg. It will be built in the near future, and will be about 30 miles long, from Covington on toward the divide between Potts creek and Big Stony, which latter runs through Norfolk & Western territory. This area has been explored by experts who have exposed and opened the ore body in more than 50 places, which show that the slopes on either side, as well as the valley itself, contain a persistent bed of Oriskany ore from 20 to 50 feet in thickness. Most of this ore will be made into pig iron by furnaces to be erected along the road upon the syndicate's property, and some will be shipped to furnaces in Virginia. A large proportion of the pig iron produced on Potts creek will be shipped to Pittsburg. A perfectly satisfactory traffic arrangement has been made with the Chesapeake & Ohio people, which is to apply alike to the West Virginia & Pittsburg and the proposed Potts Creek Railroad."

Summing up the result of my reconnaissance in the territory of the Camden system, I am convinced that the value of the traffic it will create is beyond computation. Unlike most new road-beds, this one is thoroughly ballasted and in first-class condition.

PARKERSBURG, W. VA., Oct. 19, 1891.

Texas and Mexico Winter Resorts.

As winter approaches the tourist begins to ask him or herself the question, "Where shall I spend the winter?" If you have not been to Texas or Mexico, try one or both. Galveston, Houston, Austin, San Antonio and Laredo, all situated directly on the line of the International & Great Northern Railroad, offer many attractions; also Monterey, Saltillo, San Luis, Potosi and City of Mexico, the direct line to which is via the International & Great Northern Railroad via Laredo. Pullman buffet sleeping cars between St. Louis and Galveston and San Antonio via Iron Mountain Route without change; only one change St. Louis to points named in Mexico. For folders, a geographically correct map of Texas and Mexico and other information, address D. J. Price, Assistant General Passenger Agent.

GREENSBORO, N. C.

superb Opportunity for Investment.

GREENSBORO, N. C., October 20, 1891.

Editor *Manufacturers' Record*:

Greensboro possesses many special inducements for manufacturers and investors in addition to such as it has in common with some other towns. All the attractions and advantages sought for by those who remove from one section to another are wonderfully combined here. There are few places where may be found a climate superlatively healthful, pleasant the year round; a great abundance of high-grade iron ore in close proximity; convenience to coal and coke; vast forests of splendid timber, comprising the best varieties of hard woods, as well as pine and cypress; fine farming lands, and an advanced state of agriculture, horticulture and dairying; railroad facilities, such as ordinarily only the large cities possess; all the comforts and conveniences of an old community. All these things, and more, are found at Greensboro. With its population of 8,000 it has such city conveniences as few towns of three times the population can boast of. Its hotels, churches, schools, banks, paved streets, water works, electric lights and such things are attractions not found in new towns. The town has a modern sewerage system; it has fifteen churches; it has a fine public school system and a female college of wide reputation; it has tobacco factories, furniture factories, ice factory, brick works, cotton mills, flour mills, foundries and a wide range of minor industries.

The first iron furnace to be erected in North Carolina since the beginning of the era of Southern iron-making is now in course of erection at Greensboro. The North Carolina Steel & Iron Co., which is building it, owns a large body of land immediately adjacent to and partly within the town. The company is preparing to put some of its most desirable lots on the market, and they will be offered for sale on the 4th of November. The company wants to sell to those who are or will become residents of the town, and to encourage building on the lots, it has put a very low price on them.

The electric car line is now being built through this property to the railroad depots, thereby making it quickly accessible from all directions. If ever there was a chance for profitable real estate investment it will be found at this company's sale.

B. D. CHARLES.

Many New Improvements at Bristol.

BRISTOL, TENN., October 19, 1891.

Editor *Manufacturers' Record*:

The new furnace will go into blast October 20th. The company is building 30 tenement-houses for its employees. Track-laying on our new railroad, the Bristol, Elizabethton & North Carolina, is to begin at once. This road goes through one of the best iron districts in the South. A steel plant is a certainty, and work on it will be commenced before long. Nine miles of electric car line are being built; nearly all the grading is done and four miles of track already laid. Harrisburg (Pa.) parties are building a large plant to manufacture all kinds of hickory handles. The Hotel Fairmont is being renovated and refurnished, and will be once more run by the owners, under the management of Mr. P. M. Fry. Mr. Fry has been connected with the Greenbrier White for eight years. The city is laying down eight miles of granolithic walks. Water mains are being put in by the Bristol Water Co. The Baptists are erecting a school to cost \$100,000. The Presbyterians are raising \$100,000 to build a college; \$60,000 already subscribed and 16 acres of land has been donated to the college. J. M. BARKER.

MACHINERY WANTED.

Belting.—F. G. Hamilton, Bigfoot, Texas, wants belting.

Boiler.—The Arthur Radiator Manufacturing Co., Arthur, Tenn., will probably purchase a boiler. Address William Arthur.

Boiler.—R. L. Scarce & Co., Moscow, Ky., want a Mansfield 50 horse-power boiler.

Boilers.—The Bartow Tube Well Works, Bartow, Fla., is receiving bids on two brick-set boilers 35 horse-power each.

Boiler and Engine.—A. L. Smith, De Siard, La., will probably want a 30 horse-power boiler and engine.

Boiler and Engine.—The Cushman Iron Co., Roanoke, Va., will want an 80 horse-power boiler and engine.

Bolt Cutter.—The Cushman Iron Co., Roanoke, Va., will want bolt cutter.

Bolt-heading Machine.—The H. Dudley Coleman Machinery Co., Limited, New Orleans, La., wants a bolt-heading machine for heading bolts 1½ and under.

Candy Factory.—The Meridian Candy Manufacturing Co., Meridian, Miss., will want machinery for use in candy factory.

Cars.—The Hope Splint Coal Co. wants mine cars. Address John Weyersmiller, Montgomery, W. Va.

Coal Tipples.—The Hope Splint Coal Co. wants all kinds of tipping apparatus. Address John Weyersmiller, Montgomery, W. Va.

Corrugated Iron.—The Bartow Tube Well Works, Bartow, Fla., is receiving bids on 100 squares of galvanized corrugated iron.

Cotton Gin, etc.—A. L. Smith, De Siard, La., wants two 70-saw cotton gins, one press, 30 bale capacity, and one elevator.

Cotton-gin Outfit.—F. G. Hamilton, Bigfoot, Texas, wants cotton-gin outfit, stand, press, feeder, condenser, etc.

Cupola.—The Arthur Radiator Manufacturing Co., Arthur, Tenn., will probably purchase a cupola. Address Wm. Arthur.

Drill Presses.—The Cushman Iron Co., Roanoke, Va., will want drill presses.

Drying Presses.—The Southern Veneer Co., Waverly, Va., is in the market for steam presses for drying veneers by pressure.

Electric-light Plant.—The Bartow Tube Well Works, Bartow, Fla., is receiving bids on an electric-light plant of 350 incandescent and 10 arc lights.

Electric-light Plant.—The Fort Valley Investment & Improvement Co. of Fort Valley, Ga., wants estimates on an electric-light plant sufficient to light a city of 2,500 inhabitants. Address W. H. Harris.

Electric-light Plant.—R. V. Booth, mayor, Vicksburg, Miss., will receive sealed proposals until December 7th for lighting the city; bids to state the candle-power of electric light and to be made on 10, 20, 30, 40 and 60 electric lights for one, two or three years.

Electric Plant.—R. K. Marshall, Mt. Airy, N. C., will need an electric plant.

Electrical Railroad.—Charles W. Gallagher, 546 Mosher street, Baltimore, Md., wants estimates on the building of an electrical railroad.

Elevator.—W. J. Edbrooke, supervising architect, Washington, D. C., will receive sealed proposals until November 2d for all the labor and materials required to furnish and erect complete three hydraulic passenger elevators, one hydraulic mail lift, including pumps, tanks, cars, platforms, piping, etc., for the U. S. postoffice building at Brooklyn, New York, in accordance with drawings and specifications.

Engine.—The Meridian Candy Manufacturing Co., Meridian, Miss., will want an engine.

Engine.—The Arthur Radiator Manufacturing Co., Arthur, Tenn., will probably purchase an engine. Address Wm. Arthur.

Engine.—William Kirk, Parkersburg, W. Va., will soon need a 30 or 40 horse power engine.

Exhaust Fans.—William Kirk, Parkersburg, W. Va., will soon need an exhaust fan for planer, etc., and governors; size two inches.

Forges.—The Cushman Iron Co., Roanoke, Va., will want forges.

Furnace.—A. G. Sweeney, Owensboro, Ky., will purchase furnace for heating a theatre.

Gas Works.—R. V. Booth, mayor, Vicksburg, Miss., will receive sealed proposals until December 7th for lighting the city; bids of gas companies to state the candle-power for each lamp and bids to be made on 100, 125, 150 and 200 lamps for one, two and three years.

Heading Machinery.—C. R. Madeira, Elkton, Va., will be in the market for a set of heading machinery.

Hoop Machinery.—Drewry Bros., Drewryville, Va., want prices on a machine to make flat-barrel hoops.

Iron Foundry.—The Arthur Radiator Manufacturing Co., Arthur, Tenn., will probably purchase iron foundry supplies. Address Wm. Arthur.

Iron Roofing.—A. L. Smith, De Siard, La., wants iron roofing.

Lathes.—The Cushman Iron Co., Roanoke, Va., will want lathes.

Machine Shops.—The Wytheville Foundry & Machine Co., Wytheville, Va., wants to purchase machinery for machine shops. Address R. E. Witherbee, Jr., secretary.

Piping.—The Bartow Tube Well Works, Bartow, Fla., is receiving bids on 6-inch cast-iron mains.

Piping.—L. R. Smith, New Cumberland, W. Va., wants bids on 6 inch pipe for two miles of water mains.

Planer.—R. K. Marshall, Mt. Airy, N. C., will need a planer.

Planing Mill.—J. A. Brownfield, Covington, Ky., states that he will, after a time, need planing mill machinery.

Pulleys, etc.—The Cushman Iron Co., Roanoke, Va., will want pulleys and shafting.

Pulleys, etc.—F. G. Hamilton, Bigfoot, Texas, wants pulleys and shafting.

Pumps.—L. R. Smith, New Cumberland, W. Va., wants bids on a steam pump to throw a 6-inch stream 200 feet high to reservoir.

Pumps.—The Bartow Tube Well Works, Bartow, Fla., is receiving bids on two duplex pumps, 6-inch suction.

Punch and Shear.—The Cushman Iron Co., Roanoke, Va., will want punch and shear.

Saw.—The Elkin Manufacturing Co., Elkin, N. C., wants a circular cut-off saw mandrel and frame for cutting cord wood for boiler.

Saw Mill.—R. K. Marshall, Mt. Airy, N. C., will need a saw mill, small saws, etc.

Sugar Mill.—Wm. F. Joy, 10 Central street, Boston, Mass., desires catalogues and prices of the latest improved plantation sugar machinery.

Tank.—The Bartow Tube Well Works, Bartow, Fla., is receiving bids on a 25,000 gallon tank.

Tenoner.—The Elkin Lumber Co., Elkin, N. C., wants prices on a tenoner.

Vacuum Pan.—The Meridian Candy Manufacturing Co., Meridian, Miss., will want vacuum pan.

Wagon Factory.—The Richmond Wagon Manufacturing Co., L. M. Blanton, secretary, Richmond, Va., will need special machines for use in wagon factory.

Water Wheel.—R. K. Marshall, Mt. Airy, N. C., will need a 48-inch water wheel.

Water Works.—King & Gray, Blowing Rock, N. C., want to purchase a tank and outfit for supplying a hotel with water.

Wire Rope.—The Hope Splint Coal Co. wants wire rope. Address John Weyersmiller, Montgomery, W. Va.

AL CREDMAN, P. O. Box 95, Memphis, Tenn., is desirous of obtaining addresses of vulcanized fibre manufacturers.

THE Nashville Roofing & Paving Co., of Nashville, Tenn., needs a foreman for a paint-manufacturing business.

THE Hope Splint Coal Co. wants all kinds of building material. Address John Weyersmiller, Montgomery, W. Va., secretary.

JEROME K. CHASE & SONS, Florence, S. C., desire quotations on hard and soft coal in 1, 10 and 20 carload lots f. o. b. cars at Florence.

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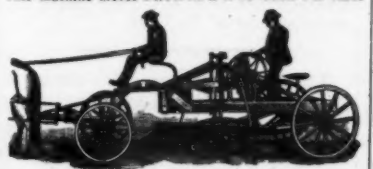
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Pulley Clutch and Cut-Off Coupling.

The new pulley clutch and cut-off coupling manufactured by the Allentown Foundry & Machine Co., Allentown, Pa., is illustrated in detail by the accompanying cuts. It consists of few parts, and its arrangement is very

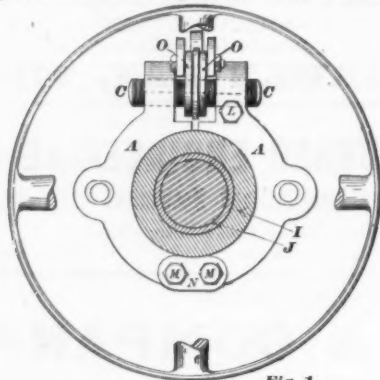


Fig. 1.

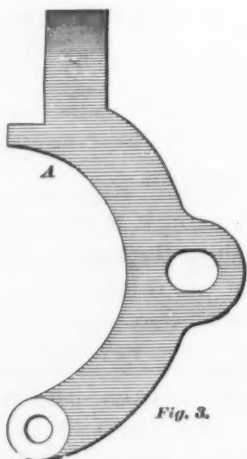


Fig. 3.

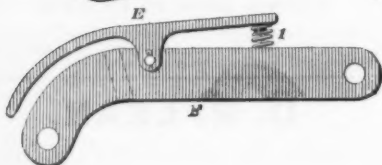


Fig. 4.

compact. Fig. 1 shows an end view, and Fig. 2 a longitudinal section of the clutch. The long hub I cast to the pulley is bored out and lined with a brass bushing J. This pulley runs loosely on the shaft, and the

a bolt M; these bolts are fitted into the flange of the coupling H, so as to cause the clamps to revolve with the coupling. For further security a plate N is placed under the heads of the bolts M M to tie the two together. The right and left-handed screw C C works in brass nuts, which are fitted in the clamps A A, and by turning this screw in one or the other di-

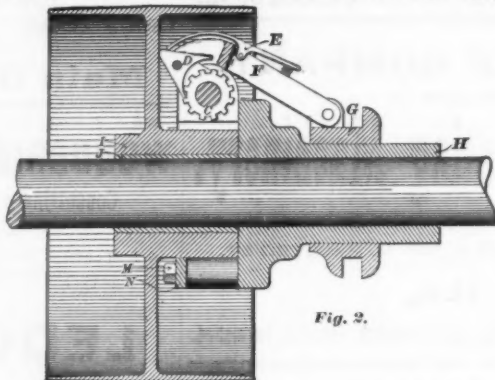
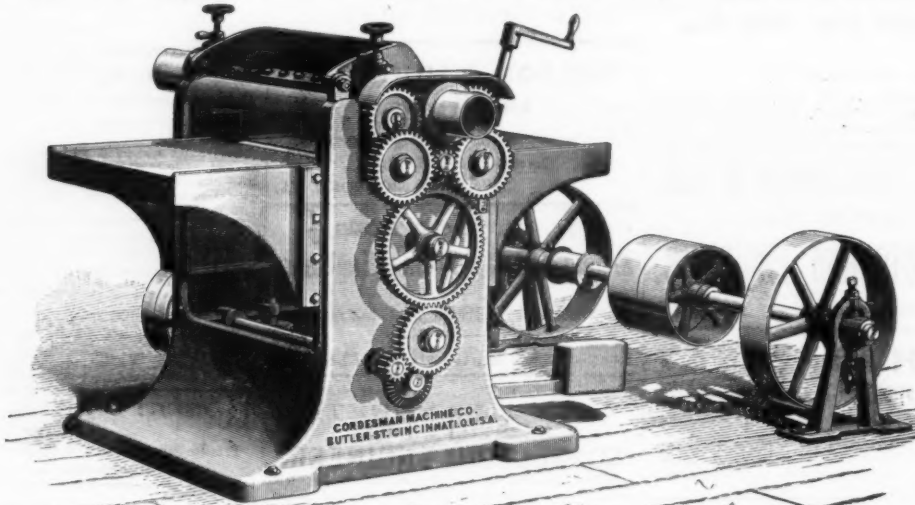


Fig. 2.

rection, the clamps A A are either tightened or loosened on the hub I of the pulley. For the purpose of turning the screw C C in either direction a ratchet wheel is fastened to its center, which engages with the pawl D. The pin, on which

clamps A A, thereby transmitting motion to the pulley. When a loosening of the clamps is required the sleeve G is moved back sufficiently to reverse the pawl D; the finger E in this case will bear on the other side of the pawl, causing the ratchet



NEW MEDIUM SURFACING MACHINE.

New Surfacing Machine.

The Cordesman Machine Co., of Cincinnati, Ohio, has recently introduced a complete new line of medium surfacing planers, varying in size from 18 to 30 inches in capacity. The machine illustrated by the following cut is designed to plane 26 inches wide and 7 inches thick.

The frame is of pleasing design, extra strong and heavy; the base well spread, covering the floor on all four sides. The table is cast in proportion with the rest of the machine, heavily ribbed throughout, and fitted to the frame by means of four bearings 14 inches long and 20 inches apart, provided with adjustable take-up gibs to compensate for wear which is apt to occur in time. By this manner of construction, it is said to be impossible for the table to become shaky or vibrate. The vertical adjustment of table is accomplished by means of crank, handle and bevel gear conveniently placed, the different thicknesses being readily determined by index on side. The cylinder with journals is a solid crucible steel forging accurately turned and balanced. It is provided with lips to strengthen the edges of the knives, and runs in large self-oiling boxes, lined with genuine babbitt metal. The two adjustable pressure bars (one on each side of cylinder) yield to the inequalities in the

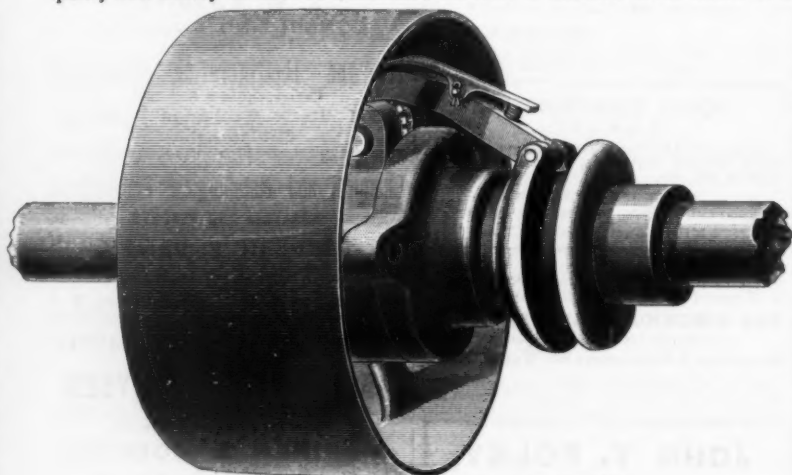


FIG. 5.—PULLEY CLUTCH AND CUT-OFF COUPLING.

long hub of the flanged coupling H is keyed on the shaft. The hub of this coupling is turned off to allow the sleeve G to move longitudinally on it. Fig. 3 shows a separate view of one of the clamps A A, shown in Fig. 2; each clamp is pivoted on

shown. From the foregoing will be seen that the links O O form a connection between the screw C C, the ratchet wheel, pawl and the lever F. A finger E is fulcrumed on the back of the lever F, and the spring I, acting at one end, causes the

wheel to loosen the screws.

As the lever F recedes the position of the pawl D relatively to the lever F changes, and when a certain distance has been passed over, the finger E has ridden over the outer edge of the pawl D, and the pressure is applied to the side of the pawl opposite to that shown in the illustration. By this simple means the position of the pawl is quickly changed, thereby producing an action either for tightening or loosening the screw C C, according to which side of the pawl is engaged with the ratchet wheel, the whole arrangement requiring but a small space on the shaft. A marked advantage is claimed for this clutch, namely, the tightening may be gradual, thereby starting the machinery slowly, and by further tightening, all slipping on the pulley is prevented. For dynamos, and other machinery requiring caution in starting, this clutch is said to be well adapted.

For cut-off couplings the pulley part is not required; one section of the shaft extends into the hub I sufficiently far to support it while running loose, and the hub I is keyed on the other section of the shaft.

At L a screw is provided when soft metal or a wooden plug is to be brought in contact with screw C. By tightening the screw L the plug is brought in contact with C, and makes it tighter in the thread, so as to stand without loosening when in use.

surface of the lumber, and being very near to the cut, enables pieces six inches or less in length to be planed with perfect accuracy.

The arrangement of the feed works is a novel and important feature of this machine. It can be easily stopped and started, and will produce an exceptionally powerful and reliable feed. The four rolls are all made of forged steel of large diameter and driven by a patent compound yielding gear, which will permit the rolls to rise to such an extent as to take $\frac{1}{2}$ or $\frac{3}{4}$ -inch cut without becoming disconnected. The infedding roll is given pressure by a weighted lever, while the outfeeding roll has spring tensions controlled by hand-wheels convenient to operator. The countershaft is 1 13-16 inches diameter and has three hangers, being especially adapted for this machine. They are provided with adjustable cap boxes for taking up wear, and lined with genuine metal, so they are amply strong and stiff to withstand the strain and jar of the belts.

THE Delaware Iron Co., owned and operated by Morris, Tasker & Co., at New Castle, Del., which was lately destroyed by fire, has decided to rebuild, and have placed the contract with the Berlin Iron Bridge Co., of East Berlin, Conn., for the entire plant, which will be constructed of iron from the designs of the Berlin Co.

Boring and Turning Mill.

The following illustration shows the boring and turning mills made by the Bickford Drill Co., Cincinnati, Ohio, manufacturers of upright, radial and universal radial drills.

This single column boring and turning mill is a very useful tool in every machine shop. The work can be chucked on the table much easier than in a lathe. It can readily be placed on the table, and resting thereon, can be wedged up and set in a shorter time. The center of the tool spindle can be brought to center of hole in table; then, by the use of boring bars, fly-wheels, truck-wheels, pulley, etc., can be bored same as on a special boring machine. By substituting tool holder in place of bar, any object may be faced, bored or turned as large in diameter as swing of machine and as high as distance between table and cross rail. The tool spindle is 6 inches in diameter, octagon shape, with bearing or alternate sides, giving the best possible bearing with little friction and excellent provision for taking up wear.

The spindle can be operated at any

simple method for the management of such work. Finding great difficulty in keeping his laborers to grade, the plan of setting up targets about the height of the eye above the bottom of the ditch suggested itself as

a remedy for this trouble. Rods five feet long were made, graduated in feet, numbered from the top so that the depth of cut was marked on the grade pegs could be laid off from the top of the rods, and targets set at

these points would give a line parallel to and five feet above grade. The laborers seemed to readily understand the system, and the inventor states that in this particular case, which included a great deal of soft rock work, about five cents per cubic yard was saved by the adoption of the device, and that fully two cents per cubic yard could be saved in all work of similar character. Since first used by Mr. Rogers the apparatus has been greatly improved and is now manufactured by him.

Return Tubular Boiler.

The accompanying illustration shows a return tubular boiler as manufactured by the Casey & Hedges Manufacturing Co., of Chattanooga, Tenn. This boiler is made in three struts, one sheet to a strut, with all of the longitudinal seams double-stagger riveted and above the fire line. The dome flange is double riveted to the shell and the dome head conical to a radius of 36 inches. There is a convex cast-iron flange riveted on the inside of the dome head, threaded for steam supply. The dome head being concave, hence no braces are needed in the dome, which is a great advantage, as it is very difficult to replace a brace in a dome head when it becomes necessary to do so.

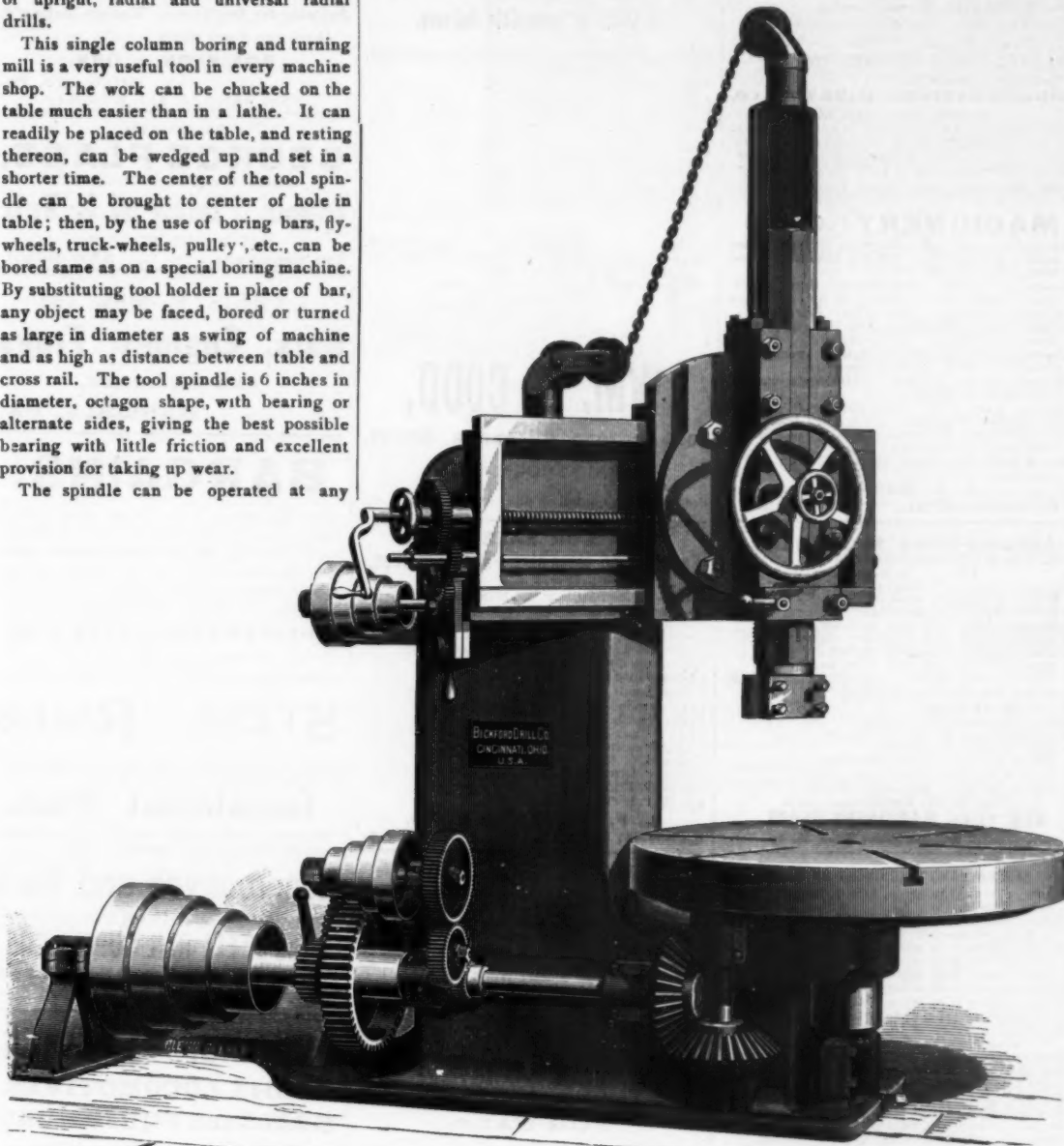
These boilers are set one and one half inches lower at the back end than at the front end, and there is a flange of same material as shell securely riveted to shell near back head and tapped for blow-off. This enables the engineer to blow his boiler out clean.

The smoke-box in its boilers are not made by extending the shell, as is usually done, but the boilers are made flush-ended, so that the water covers all seams. The smoke-boxes are bolted on tight, the smoke-box being of heavy cast-iron pattern. The stack nozzles are also cast iron; this insures a close fitting smoke-box and good draft.

The fronts, while being ornamental, are also very heavy and provided with heavy center column. The doors are large and high, the fire liners are deep and the fittings are first-class.

The company builds, in addition to return tubular boilers, the two-flue boiler, cylinder boilers, also the Scotch marine portable boilers, also vertical and submerged tube boilers.

The company's shops are among the largest in the United States, being 480 feet long by 80 feet wide, and equipped with the best tools and machinery of the present day. Its business is very heavy, and the prospects are good for an exceedingly active fall and winter.



BORING AND TURNING MILL.

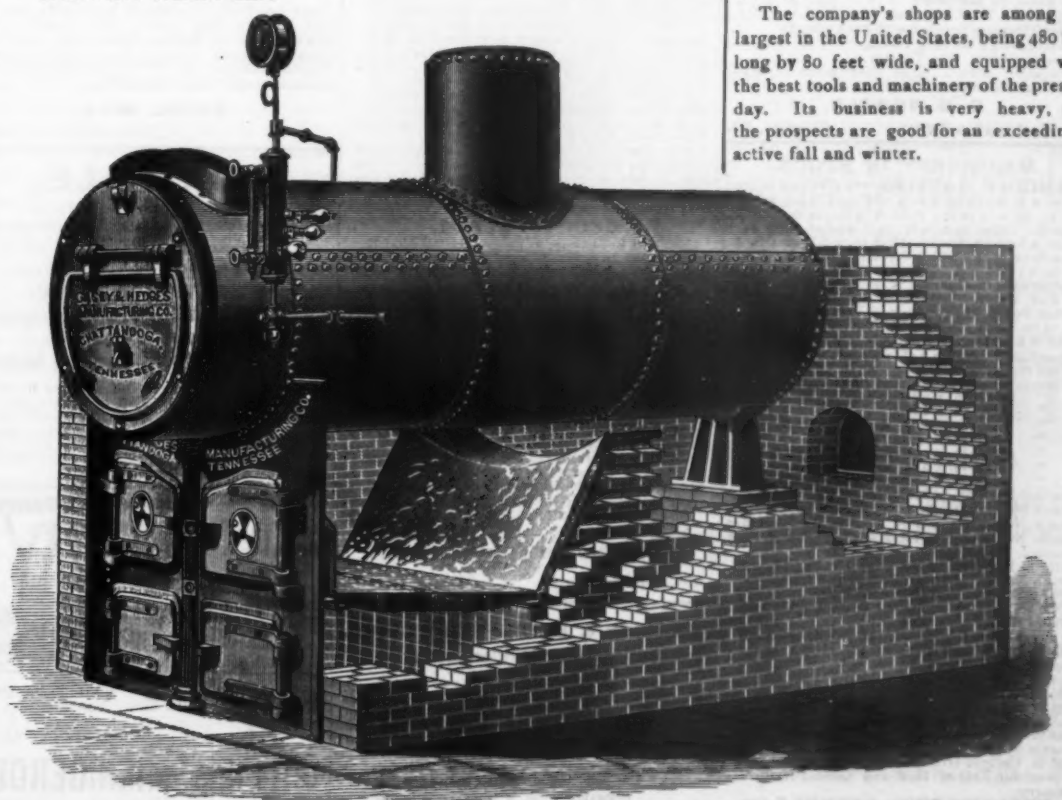
angle, has quick hand adjustment and powerful automatic feed in all directions. The column is so designed that when doing heavy work of large diameter the spindle is brought directly opposite the column, thus giving the best possible support.

The gearing under the table is spur gearing, giving a smooth and steady motion, free from all the lifting, chattering tendencies of bevel-gear machines. All gears are cut from the solid. The cross rail, saddles, spindles and all journals are carefully scraped to a perfect bearing. The shafts are of steel. The table is extra heavy, running in large journals and resting on a tempered step, adjusted by taper key, operated by screw in front of base. Cone pulleys are large, four steps, all for 4 1/2-inch belt.

The machine is very heavy, strong, and made with great care.

These boring and turning mills are built in two sizes, 4 foot and 6-foot swing. The 4-foot will work any object 48 inches in diameter and 24 inches high; the 6 foot mill will work any object 72 inches in diameter and 28 inches high. Prices with full particulars will be cheerfully sent on application to the manufacturers.

THE experience of D. D. Rogers, of Ocala, Fla., while in charge of a large ditching contract near the east coast of Florida, resulted in the introduction of a



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TRADE NOTES.

"PLASTERING" is the theme on which a little folder has been published by Culver & Landon, of 719 13th street N. W., Washington, D. C. They assume that the reader "don't know it all," and offer some advice and practical hints, with incidental reference to the value of Acme cement.

THE Columbus (Ga.) Iron Works Co. is placing a large number of their ice and refrigerating machines in the South. In addition to the sales mentioned in these columns during the past few weeks, the company reports an order from the Mobile (Ala.) Brewery for a 50-ton machine.

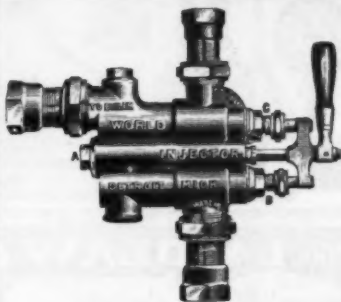
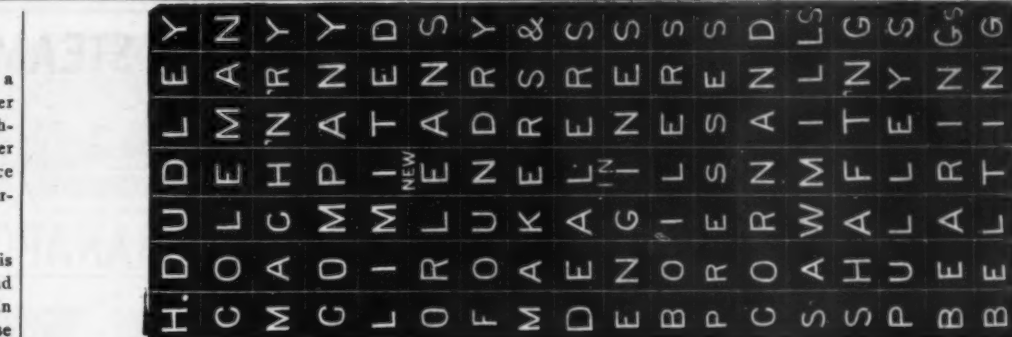
IN this issue Wm. C. Codd, 2010 1212 Aliceanna street, Baltimore, Md., offers for sale a line of boilers, both new and second-hand, ranging from 5 to 75 horse-power, and engines from 4 to 20 horse power; also various sizes of Eclipse steam pumps, new. Bargains can be had in these machines, as quick sales are desired.

A. D. GETZ & SONS have erected in Charlestown, W. Va., a three-story brick building, 40x100 feet, for the manufacture of horse collars, harness and leather fly nets. Controlling labor-saving machinery of their own invention, and with a practical and experienced supervision in all the details of their business, they are enabled to offer special inducements to the trade, and to solicit but a trial order to convince of the superior worth of their product.

THE Riehle Bros. Testing Machine Co. has just completed a large vertical screw-power testing machine arranged with two movable crossheads for quick adjustment for testing long and short specimens by tensile strength. It will test specimens from 6 feet to 10 feet long, transverse specimens from 1 to 18 feet, and compression specimens from 12 feet down. This machine was designed and built for the School of Practical Science of Toronto, Canada, and can be seen in operation for a few days at the works of the builders in Philadelphia, Pa.

"COMMON SENSE IN MAKING AND USING STEAM" is a handy volume composed of facts for the consideration of proprietors of steam plants, written by Mr. Wm. H. Bailey, M. E., who describes himself as "one who has paid for his experience." This volume deserves a careful examination by every user of steam. It is not a tiresome technical work designed for experts, but a plain, practical, common-sense book, giving much-needed advice as to the location and arrangement of boilers and engines, important facts as to furnaces and fuels, how to purchase a power plant to the best advantage, and then how to run it, etc. With its accustomed enterprise, the Mason Regulator Co., of Boston, purchased the MSS. for this book, and has published it in the interest of all steam users.

C. & G. COOPER & Co., manufacturers of Corliss engines, compound condensing and high-pressure, and boilers, Mt. Vernon, Ohio, report among recent orders the following: Lynchburg Cotton Mill Co.; Lynchburg, Va., 500 horse-power compound condensing; Robison Toledo City Railroad, Toledo, Ohio, 500 horse-power compound condensing; Muskegon Electric Light Co., Muskegon, Mich., 350 horse-power compound condensing; G. W. Grafflin & Co., Baltimore, Md., 200 horse-power engine and boilers; Dallas Cotton Mill Co., Dallas, N. C., 150 horse-power engine and boilers; Clover Cotton Mill Co., Clover, S. C., 100 horse-power engine; Buckeye Electric Co., Cleveland, Ohio, 100 horse-power engine; Rockford Chair & Furniture Co., Rockford, Ill., 150 horse-power engine; Barnard & Leas Manufacturing Co., Moline, Ill., 150 horse power



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engine; Diamond Furniture Co., Rockford, Ill., 100 horse-power engine; South Bend Electric Co., South Bend, Ind., 500 horse-power compound engine and boilers; Raleigh Cotton Mill Co., Raleigh, N. C., 400 horse-power compound engine and boilers; Bradner, Smith & Co., Chicago, Ill., 250 horse-power engine; Citizens' Brewing Co., Chicago, Ill., 125 horse power engine; State Journal Co., Lincoln, Neb., 50 horse-power engine; H. C. Spaulding & Sons, Elmira, N. Y., 175 horse-power engine.

OF especial interest to New England people desirous of obtaining specific information regarding Southern enterprises is the announcement that a bureau has been established recently in this city having for its object the obtaining of such facts as are possible respecting Southern localities and enterprises, with a view to encouraging investments in them by people in this section. Every part of the South is included in its scope, and its correspondents are located at every important point from Virginia to Texas. A feature of the enterprise which will commend it to all and ensure its general use, is that no charge whatever is made for any information rendered or for points given, while a hearty invitation is extended to all would-be investors to make the fullest use of the advantages of the bureau for getting inside facts as to the desirability of any Southern undertaking. All the available printed matter relating to each Southern town, together with their prospectus or other data, is kept on file, so that one may become familiar with the claims and prospects of any given locality at the minimum outlay of time and effort. The bureau is located in the new Exchange Building, State street, and is under the management of Mr. F. C. Griffith.—Boston Advertiser.

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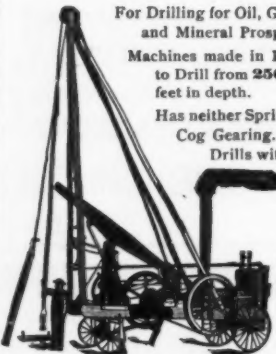
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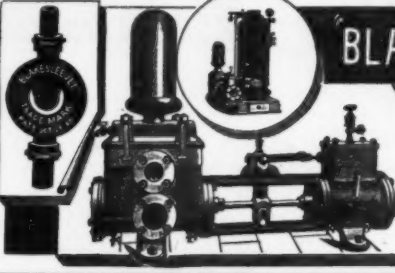
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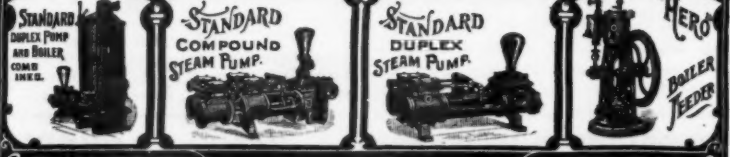
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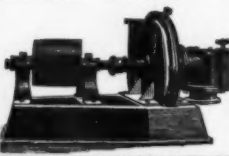
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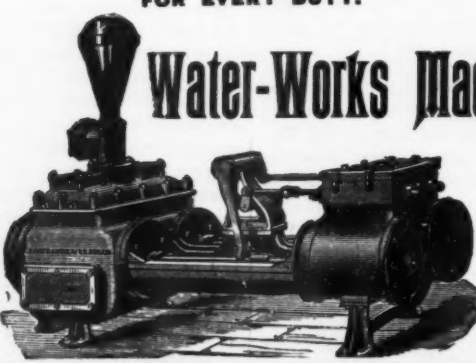
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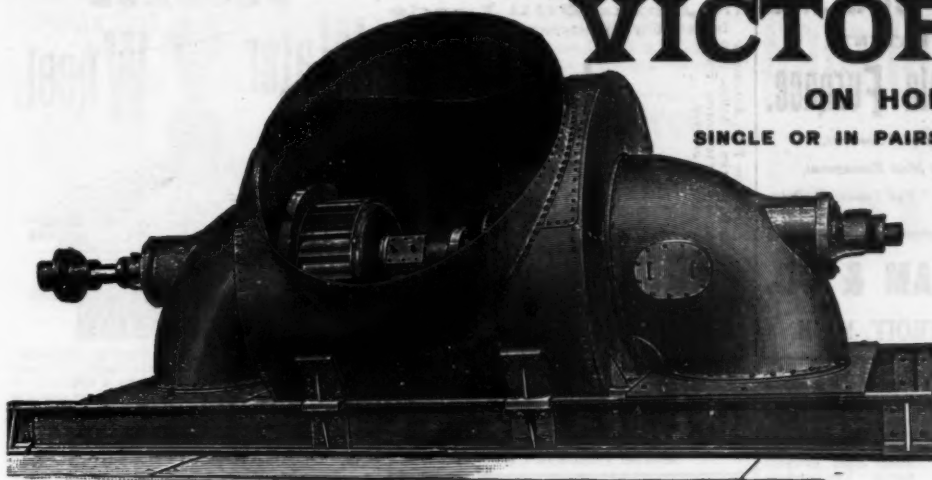
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35-inch	17.29	133.19	.8697
40-inch	16.49	148.93	.8253
45-inch	15.31	179.29	.8202

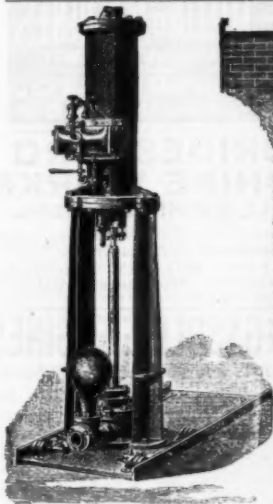
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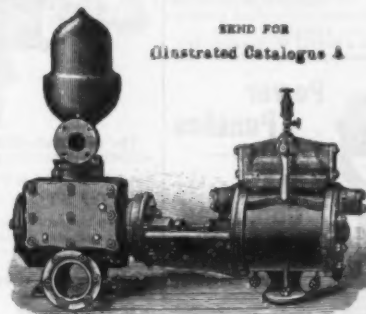
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PUMPS FOR
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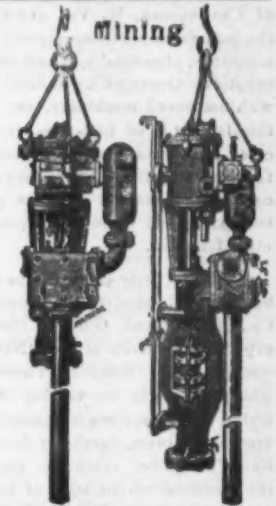
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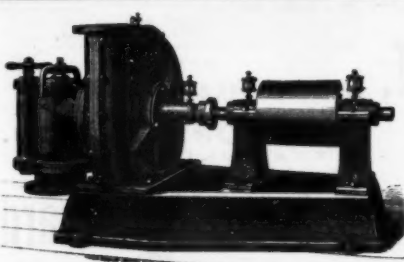
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THE BUFFALO STEAM PUMP CO.
BUFFALO, N. Y. — MANUFACTURERS OF
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HEALD & SISCO CENTRIFUGAL PUMPS

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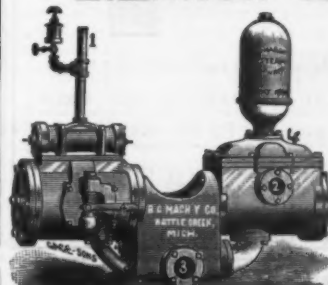
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ALL SIZES IN STOCK. Guaranteed superior to any other make. Our special Dredging Pumps will pass solids 10 in. in diameter. Our Sand Pumps can be seen running in St. Louis, Kansas City, Chattanooga, Memphis, Decatur, Louisville and many parts of the South.

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MARSH STEAM PUMP.



Absolute actuation and regulation without use of tappets, levers or other mechanical connections. The most economical boiler feeder made. Returns exhaust steam to the boiler. Heats feed water 40 to 50 degrees, according to tests made by Prof. M. E. Cooley, of University of Michigan. Sizes—For boilers, 10 to 800 horse-power.

AGENTS.

N. O. Nelson Mfg. Co., St. Louis; Stannard & Dillon, Chicago; Valk & Murdoch, Charleston, S. C.; Milton W. Barkhouse, Louisville, Ky.; E. L. Cole, New Orleans, La.; Keating Implement & Machine Co., Dallas, Texas. Send for Catalogue to the

Battle Creek Machinery Co.

SOLE MANUFACTURER,

BATTLE CREEK, MICHIGAN.

COMPLETE STEAM PUMP
10 SIZES FROM \$7 TO \$75
FOR DRIVE WELLS
& ETC.
WRITE FOR PRICES AND
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VANDUZEN & TIFT
SOLE MAKERS.
CINCINNATI, O.

We have erected

STAND PIPES

At the following Places:

Kankakee Ill.,	20X124
Cornwall, Ontario,	20X120
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SHARON BOILER WORKS,
(Limited.)
SHARON, PA.

The Sturtevant Steam Hot Blast Apparatus

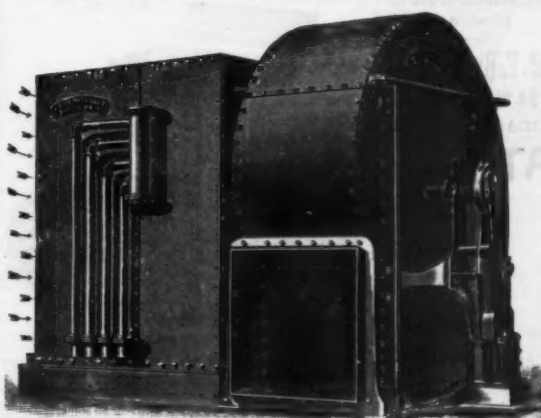
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Heating AND Ventilating

Public and Office Buildings, Stores and Manufacturing Establishments of all classes, and for drying Wood, Wool, Cotton, Tobacco, Glue, Grain, &c. Send for illustrated treatise on Ventilation and Heating.

B. F. STURTEVANT CO.

84 Oliver Street, Boston, Mass.



BRANCHES—91 Liberty St., New York; 16 S. Canal St., Chicago; 135 N. Third St., Philadelphia, Pa. W. E. Burgess, agent, Greensboro, N. C.

BUFFALO SCALE COMPANY. BUFFALO, N. Y. SCALES OF ALL KINDS.

TRADE NOTES.

THE Richmond Locomotive & Machine Works, Richmond, Va., writing about the fire in their plant on the night of the 15th inst, say: "Practically the only damage done was to the roof of the foundry. Full operation even in this department will only be interrupted a day or two at most. We are in better position for prompt and satisfactory work than ever before."

AN opportunity surrounded by conditions that seem to assure a profitable investment for a practical business man of moderate capital is presented in the card of Howard Daniels, of Greenville, S. C., published in another column. The business and machinery of the Greenville Furniture Factory, with good prospects for a more extended trade, is offered for sale on easy terms.

THE Shenandoah Brass & Iron Works, of Charlestown, W. Va., are engaged in the manufacture of brass goods of all descriptions, plumbers', gas and steam fitting supplies. Operated by skilled labor and with improved machinery, the output of this factory is of first-class quality. Located with the advantages of best railroad facilities and with cheap raw materials, this company is enabled to quote prices that must command trade in competition with other factories.

A BRIGHT little catalogue and price-list has been published by the Bronson Supply Co., of Cleveland, Ohio, to illustrate and explain the merits of the "Never-break" wrought steel utensils. These articles, which are made in various shapes and styles, combine some commendable features, as lightness, durability, beauty, cleanliness and other essentials necessary for the wholesome preparation of food. Some novel devices applied to these utensils afford much convenience to the user.

PERFECT POWER FOR HIGH BUILDINGS.—The new machines for setting type, lately introduced by the Commercial Gazette Co., are operated by one of the engines built by the Triumph Compound Engine Co., of 211-217 West Second street, Cincinnati, Ohio. Situated in the fifth floor of this building the engine is a marvel—noiseless, producing no tremor and doing its work perfectly, it is suitable for almost any purpose, but it is especially desirable for driving high-speed machinery, where close regulation is necessary and economy of space is needed.—Cincinnati Commercial Gazette.

THE Vulcan Road Machine Co., which has been removed from Kennett Square, Pa., has erected a large factory at Charlestown, W. Va., and furnished it with the most improved machinery. In a few weeks a full force of hands will be at work to supply a growing demand for these machines. Last week this factory shipped to Michigan a car-load of road machines of its manufacture. The removal of this old enterprise from Pennsylvania to West Virginia is but another evidence of the Southward tendency of industrial development.

THE Glen Cove Machine Co., of Brooklyn, N. Y., is making a very fine exhibit of improved planing, matching and moulding machines at the fair of the American Institute, now open in New York city. Its exhibit includes screw-feed planers and moulders, and "double decker," or two-board flooring machine—new machines recently invented and placed on the market. The machines are belted up and running, and are well worth a visit from those interested in examining superior machines and fine work. The fair will remain open till November 28.

SECOND-HAND cotton machinery in good running order is offered for sale on page 48 in this issue by Davol Mills, Fall River, Mass. Full particulars given upon application.

The COLLIAU PATENT Cupola Furnace.
Adapted to all Foundries,
The Most Economical,
The Lowest in Price.
MANUFACTURED EXCLUSIVELY BY
BYRAM & CO.
DETROIT, MICH.

CRAWFORD'S PATENT EXHAUST PIPE HEAD
Prevents the spray nuisance. Saves your roofs and sidewalks by separating the water from exhaust steam. The condensation can be used by returning it into tanks on the floors of your building for fire purposes. Should be used in all buildings where the exhaust pipe goes through the roof. Guaranteed to work satisfactory, well made and the cheapest head on the market. 30 days' trial given responsible parties.
WRITE FOR PRICES.
CLEVELAND STEAM FITTING & SUPPLY CO., Cleveland, Ohio.

Power Punches AND Shears Combined.
Double Power Punch
Double Power Shears.
S. D. COLTON & CO.
SALESBURG, ILL.

STARRETT'S FINE TOOLS
Skilled mechanics prefer them.
Live Dealers sell them. Catalogue sent for the asking. - -

L. S. STARRETT
ATHOL, MASS., U. S. A.

Bischoff Metal Collings,
(PATENTED.)
It will pay to investigate and write for catalogue.
Estimates submitted on application.
Fred. F. Bischoff & Co.
24 W. Lake St.,
CHICAGO, - ILL.

VENTILATORS
Made of galvanized iron and copper. Strong upward draft. Exhausts foul air, odors, gases, steam, etc. from mills, stores and dwellings; cures smoky chimneys. Perfectly storm-proof.
Galvanized iron and copper cornices and gutters. Sheet metal work for buildings. Send for illustrated circular.
E. VAN NOORDEN & CO.,
383 Harrison Ave., BOSTON, Mass.

After being on the market 6 years,
The Acome Still Leads
In Durability, Efficiency and Fuel Economy

ROCHESTER MACHINE TOOL WORKS,
Sole Builders.
ROCHESTER, N. Y.
Send for Illustrated Catalogue.

The Metropolitan Automatic Injector.
The only Automatic Injector that is operated entirely without the use of any globe valves.
TO START—Open Valve K.
TO STOP—Close Valve K.
It can be used either as a lifter or non-lifter. It is adopted by the largest Engine Builders, and is for sale by the LARGEST SUPPLY HOUSES IN THE U. S.
Ask your dealer or send to us for circular and prices.
JENKINS BROS., 71 John St., New York.

JONES, HE PAYS THE FREIGHT.
5-TON WAGON SCALES, \$60.
SEAM FOR BRASS TARE BEAM.
Freight Paid.
Warranted for 5 Years.
Agents Wanted. Send for Terms.
FARMERS' Barn and Warehouse Scales.
JONES OF BINGHAMTON, Binghamton, N. Y.

"All Sorts and Conditions of Men"
USE THE
REMINGTON Standard Typewriter,
BECAUSE IT IS
Practical, Durable, Capable, and has proven itself thoroughly satisfactory.

Our Latest Machine
Is a Poem of Perfected,
Practical Mechanical Ingenuity.
WYCKOFF, SEAMANS & BENEDICT
15 N. Charles Street,
BALTIMORE, MD

"IMPROVEMENT THE ORDER OF THE AGE"
For 16 years all users of typewriters have felt the necessity of their being improved. You will find in the SMITH PREMIER TYPEWRITER the latest and best. All the essential features greatly perfected and important improvements. The best inventive talent and mechanical skill have been employed to produce a machine of Greater Durability, Excellence of Design and Special Features. We claim, and inspection and trial prove it, the Most Durable in Alignment, Fastest Running and Most Silent. All type cleaned in 10 seconds without setting hands. Send for catalogue. **THE SMITH PREMIER TYPEWRITER CO., SYRACUSE, N. Y., U. S. A.**

SUCCESS
Water Wheel.
This Wheel is strong and durable. Excelled all other wheels in the great trial tests. It is used all over the nation. I also make a specialty of
HEAVY BEARING MACHINERY
For Paper, Cotton and Grist Mills.
S. MORGAN SMITH, York, Pa.

UNIVERSAL PLAIN MILLING MACHINES
EXCLUSIVE SPECIALTY
ADDRESSES
THE CINCINNATI MILLING MACHINE CO.
CINCINNATI, O.

THE BRIDGESBURG MACHINE WORKS
TEXTILE MACHINE MAKERS.
Worsted Machinery, Wool Machinery, Cotton Machinery, Built to Order.
HIGH GRADE | WILLIAM E. MCGILL, WORK ONLY.
Bridgesburg, Philada., Pa.
Repairs for Bridgesburg Machinery furnished promptly.

GAS and GASOLINE ENGINES
STATIONARY and PORTABLE. All Sizes.
Dwarfs in Size, but Giants in Strength.
Expense one cent an hour per horse power and requires but little attention to run them.
Every Engine Guaranteed. Full particulars free by mail. Mention this paper.
VAN DUZEN
GAS & GASOLINE ENGINE CO. Cincinnati, O.

MULLER LATHES
PATENTED.
With New and Valuable Features.
MADE ONLY BY THE
BRADFORD MILL CO.
8th & Evans, CINCINNATI, O.
Photographs and Prices on application.

Babcock Buckboard
THREE CARRIAGES IN ONE.
Ask your dealer for our work or write to
H. H. BABCOCK CO., Watertown, N. Y.
Box 406-412 Broom St., New York City.
SOMETHING NEW.—How to Cover Pulleys with Leather and make Belts Endless. Write for particulars. CRESCENT MFG. CO., Cleveland, O.

Southern Real Estate Interests.

Southern Real Estate Directory.

For the convenience of the many readers of the MANUFACTURERS' RECORD it has been deemed advisable to collect under this head a complete and reliable list of the leading Realty Agencies of the Southern States. The value of such a list for the purpose of Ready Reference will immediately become apparent to all who are interested in the growth of this section.

ALABAMA.

BESSEMER—Chas. F. Hard & Co., Real Estate and General Commission, Room 1, Charleston Block.

GEORGIA.

AUGUSTA—Clarence E. Clark, Real Estate, Stocks and Bonds. Loans Negotiated.
AUGUSTA—Mulherin & Armstrong, Real Estate and Insurance. Loans negotiated.

KENTUCKY.

CATLETTSBURG—Standard Land Co., Brokers in Mineral Lands. Correspondence solicited.

NORTH CAROLINA.

CHARLOTTE—Brem & Co., 100 City Lots, Farm Lands and Water Powers.
MARION—W. H. Roberts & Co., Real Estate, banking and Insurance.
N.WILKESBORO—Am. House M. T. Land Co., Ath. Cap. \$5,000,000 Shrs. \$10. Town bldg.
OLD FORT—O. H. Blocker, Real Estate, Timber and Mineral Lands.
OXFORD—Rice & Lanister, Real Estate, Stocks and Insurance.
STATESVILLE—W. G. Lewis, Real Estate Agent. Correspondence Solicited.
STATESVILLE—P. C. Carlton, Real Estate, Timber and Mineral Lands.
WINSTON-SALEM—Johnson & Jones, Real Estate, Insurance, Stocks.
WINSTON-SALEM—Cullin & Kautner, Real Estate and Stocks.
WINSTON-SALEM—F. C. Humphrey, Real Estate, Insurance, Stocks and Bonds.

SOUTH CAROLINA.

COLUMBIA—Geo. W. Parker & Co., Real Estate and Insurance. Loans Negotiated.
COLUMBIA—Sole & Simmons, Real Estate, Stocks and Bonds. Loans negotiated.
GREENVILLE—Browning & Co., Real Estate, No. 60 Court Square.
SPARTANBURG—Spartanburg Investment Association, Real Estate & Loans.

VIRGINIA.

BASIC CITY—A. B. Carter, Real Estate and Insurance Agent. Correspondence solicited.
BERRYVILLE—S. J. C. Moore & Co., Real Estate Agents.
BUENA VISTA—Blackburn, Davis & McGivray, Real Estate Stocks and Insurance.
BUENA VISTA—A. P. Moore & Co., Real Estate and Stock Brokers.
BUENA VISTA—Guyer, McIlure & Co., Real Estate, Stocks and Bonds. Write for pamphlet "Buena Vista Securities."
BUENA VISTA—Buchanan & Anderson, Real Estate Agents and Stock Brokers.
BUENA VISTA—C. H. Jordan & Co., Real Estate, Stocks and Insurance.
CHARLOTTESVILLE—J. C. McKenna & Co., Real Estate and Insurance Brokers.
CHARLOTTESVILLE—L. D. Aylett & Co., Real Estate, Stocks and Bonds. Correspondence solicited.
CHARLOTTESVILLE—Jas. W. Dolin, Real Estate. Send for Dolin's Land Advertiser.
ELKTON—Borum & Pringle, Real Estate, Stock and Insurance Agents.
FARMVILLE—Herndon, Hazell & Co., R. E. and Insurance. Members Va. R. E. Ex.
FORT DEFENSE—McOne, Parkins & Co., Real Estate. Correspondence solicited.
FRONT ROYAL—Dorsey, Thompson & Co., Real Estate and Stocks, No. 1 Court Green.
LURAY—Wright, Leyburn & Co., Real Estate, Stock & Ins. Correspondence solicited.
NEWPORT NEWS—Robinson & Miller, Real Estate Agents. Correspondence solicited.
NEWPORT NEWS—Braxton, Chendler & Marye, Civil Engineering, Real Estate and Insurance, Washington Ave. & 30th St.
NEWPORT NEWS—C. E. Neils & Bro., Real Estate and Insurance Agents. Representing \$150,000,000.
NEWPORT NEWS—W. E. Barrett & Co., Real Estate & Ins. Correspondence solicited.
NORFOLK—J. M. Marshall & Co., Real Estate Brokers, 113 Main Street.
NORFOLK—A. W. Cornick & Co., Real Estate Agents, 103 Main Street.
ROANOKE—H. Chipman & Co., Real Estate, 109 Salem Avenue. Call and see us.
ROANOKE—Simmons, Carpenter & Tinsley, Real Est. Brokers, 108 Jefferson St.
ROANOKE—Dupuy & Tallantferro, Real Estate & Insurance Agents, 11 Campbell St.
ROANOKE—Southwest Virginia Mineral, Timber, Farm, Coal and Iron Ore Lands. J. A. Dalby, Sons & Co. Correspondence sol.
ROANOKE—C. O'Leary & Co., Real Estate Agents, 9 Campbell Street.
ROANOKE—Gray & Boswell, Real Estate Brokers, 110 Jefferson Street.
ROANOKE—Roanoke R. E. Co. (Chartered), R. Estate Brokers. Correspondence solicited.
ROANOKE—Iron Belt Building & Loan Association, Pittsburgh Lee, President.
ROANOKE—Wilbur S. Pole & Co., Buy, Sell and Exchange Real Estate.
SALEM—Allen & Tompkins, Dealers in Mineral and Timber Land.
WINCHESTER—Hancock Bros., Real Estate and Insurance Agents, Court House Ave.
WINCHESTER—Hansbrough & Co., Real Estate and Stock Brokers.

WEST VIRGINIA.

CHARLESTOWN—Washington & Alexander, Real Estate Agents.
CHARLESTOWN—Davenport & Mallorie Members Real Estate Exchange. Negotiations conducted.

Handle Factory
FOR SALE.

At Little Rock. Capacity 800 dozen per day. Saw mill attached. Machinery all new, having been in use only one year. Built on three acres of ground on bank of Arkansas river. Missouri Pacific Railroad System within four blocks. Will be sold for about half of its original cost. Satisfactory reasons for selling. For further particulars address

THE ARKANSAS PRESS,
LITTLE ROCK, ARK.

FOR SALE.

SECOND-HAND STEAM PLANT,

All in good condition, divided to suit.

One Corliss Engine, 26x48-in., 300 H. P.
One Condensing Corliss Engine, 30x72-in., 600 H. P.
Three Tubular Boilers, 72 in. diam. x 17 ft. long.
All the above can be seen at Davol Mills, Fall River, Mass. Ready for immediate delivery.

ROBERT WETHERILL & CO.
CHESTER, PA.

Shoe Factory
FOR SALE.

The Staunton, Va., Factory for Women's and Children's Fine Shoes (capacity 500 pairs per day) having failed in business, its entire plant of NEW AND IMPROVED MACHINERY is for sale privately by the undersigned on most advantageous terms. Factory is still being operated by trustee, and entire business, consisting of Factory Building, Machinery, Stock of Shoes and Raw Material and Good Will of Fine Trade will be sold very cheap and on easy terms.

Full force of skilled hands on hand and living in the city.

Correspondence is solicited by
A. C. BRAXTON, Trustee,
STAUNTON, VA.

ATTENTION
OF
CAPITALISTS AND INVESTORS
IS INVITED TO A
WATER POWER
Now in my Hands, FOR SALE.

It has a head of from 20 to 22 feet, a never-failing supply of water, a fine cut granite stone dam, laid in hydraulic cement, and a capacious raceway more than a mile long. The property covers about 60 acres of ground, with a frontage on the power of 5,600 feet, and a trunk line railway along the whole frontage, a blast furnace and rolling mill and 20 operatives' houses. It is adjoining a city of 25,000 people and at the crossing at grade of three trunk line railways. There is plenty of room for the establishment of other large industries besides those already located. This entire property can be bought at a low figure if taken at once.

For full particulars address
ED. W. KIRK TALCOTT,
57 BROADWAY, NEW YORK.

Crowder's and King's Mountain
FOR SALE.

THIS HISTORIC MOUNTAIN, with about 25,000 ACRES OF LAND is now on the market. HERE IS WHAT WE HAVE.

Some nice residences in the beautiful town of King's Mountain, also a large number of building lots. This town is on the Richmond & Danville Railroad.

Three miles from here is the lofty pinnacle of King's Mountain; eight miles brings us to the Battle Ground with its beautiful monument.

This mountain lies parallel with the great belt of minerals, which run from Virginia to Georgia, and on it we have a large amount of extra fine MARBLE of all colors.

ROOFING AND PENCIL SLATE in quantities not to be soon exhausted. A large amount of FLAGGING SLATE and some fine quarries of Building Rock.

Gold is found in paying quantities in a number of places. At two points there have been mills, and much Gold has been made, also Barytes pure, and with Gold, Silver and Lead.

There is running through this property for more than ten miles a MANGANESE VEIN of great width, analyzing in some places on the top of the ground 47% of metal.

We have two well-located points for Iron and Steel Plants with good ore enough to run them for all time, and in less than one mile from these points are Limestone and Fire-Proof Clay in very large quantities.

We also have three good Gold Mines and other Mineral Lands for sale. Address

REV. P. R. ELAM,
King's Mountain, Cleveland County, N. C.

Rare Chance

— TO —

BUY

— A —

Cotton Mill.

In consequence of the death of my son, Arthur Fitts, who was Superintendent, and one of the largest stockholders, I offer for sale

THE TUSCALOOSA COTTON MILLS.

My son and I owned a majority of the stock, and he had entire control of the internal management for seven years. My connection with it as President was with the view of his owning the property at some future day.

The 'TUSCALOOSA COTTON MILLS' is a corporation organized under the laws of Alabama in 1879, with a paid-up capital of \$40,000, and its corporate existence can be retained by the purchaser. All the stock can be transferred, and, as it has all been paid in, there would be no legal liability beyond the assets of the company.

The property is situated within the corporate limits of the city of Tuscaloosa, Alabama, and is exempted from municipal taxes until 1900. We carried \$50,000 insurance at 85 cents on the \$100.

During the nine years the TUSCALOOSA COTTON MILLS were operated, the net profits were \$63,608 31, of which \$41,000 were paid to the stockholders as dividends, and the sum of \$22,608 31 expended in improvements. This was fully equal to making an annual average dividend of 17 1/2 per cent.

We had no knowledge or experience in cotton manufacturing when we started this mill, and ran it under this disadvantage. Experienced manufacturers, it is confidently believed, would have doubled our profits for the first three years.

The machinery in the mill cost \$40,000. The building cost \$25,000.

The machinery is all in first class condition, and the appreciation in the value of the land more than counterbalances any loss by wear and tear.

BUILDINGS:

The main building is 35 feet wide by 190 feet long—116 feet of this length is three stories, and balance two stories high. The centre building is 32x50, three stories high. The dye-house is 40x80, one story. Engine and boiler-room 36x36, with drying-room above. All these are of brick, covered with tin. The office, blacksmith's shop and machine shop are one-story brick buildings covered with tin. The warehouse, dining-room for operatives and waste-house are one-story framed buildings.

We made Heavy Cotton Plaids, for which there is now a good demand from our former customers. Our goods were 37 inches wide and full weight, and made of the best materials. We sold only to the best class of jobbers, as is evidenced by the fact that our sales amounted to more than \$1,400,000, and our losses were less than \$1,200.

Weavers and other operatives can be obtained in the city and vicinity at a reasonable price, the cost of weaving per cut of 55 yards being 30 cents. A first-class dyer, Mr. Robert Wilson, resides here and owns stock in the TUSCALOOSA COTTON MILLS. He was foreman for Mr. Dickey, of Philadelphia, for several years, from whom he has a good recommendation, and he has been with us since 1879, and given fine satisfaction. He would doubtless retain his stock if he should be retained as dyer.

TERMS OF SALE:

I will sell this property for \$40,000—one-third cash, balance in one and two years with 8 per cent. interest, or half cash and balance in twelve months with 8 per cent. interest—notes to be secured by a mortgage on the property, which is to be insured and policies assigned.

As to the trustworthiness of my statements, I refer to John J. Knox, Esq., President of the Bank of the Republic, New York.

I will pay the traveling expenses of any responsible man who will come to Tuscaloosa to look into the matter and who means business.

J. H. FITTS,

President.

Tuscaloosa, Ala.

FRED. SLOSS et al, ex par. o.

VALUABLE
Manufacturing Property
FOR SALE.

On Saturday, the 28th day of November, 1891, under the order of the Chancery Court of Giles County, Tenn., will be sold on the premises, that valuable manufacturing property known as

VALE MILLS.

Situated in Giles County, Tenn., about 3 1/2 miles west of Pulaski, on which is situated a GRIST MILL, COTTON FACTORY, with all machinery necessary for the manufacture of Thread, Rope, Twine and Carpet Warp, with both ample water and steam-power, and all necessary buildings for operatives.

Sold free from redemption on a credit of one, two and three years, with interest from day of sale. Notes, with good personal security required from the purchaser, with lien retained upon the property. Possession January 1, 1892. For further particulars apply either in person or by letter to W. B. or I. N. SMITHSON, or the undersigned at Pulaski, Tenn.

J. B. STACY,

Sept 22, 1891.

Commissioner.

To Those Looking For
Manufacturing Sites.

The most desirable locations for the manufacture of wagons, stoves, horse and mule shoes, boiler plate, sheet iron, agricultural implements, furniture, or for foundries, machine shops, rolling mills, muck bar mills, nail works, glass works, cotton or woollen mills, pipe foundries, wrought iron pipe works, tanneries, or other manufacturing establishments, are to be found in Virginia, along the line of the Norfolk & Western Railroad, from Norfolk, Va., or Hagerstown, Md., to Bristol, Tenn., and upon its Clinch Valley, Cripple Creek and Ohio extensions. Hardwood in every variety; pig iron from the furnaces at Lynchburg (2), Roanoke (3), Pulaski (1 in operation and 1 under construction), Ivanhoe (1), Radford (1 now under construction), Salem (1), Graham (1), Max Meadows and Bristol (1 at each point now under construction), Shenandoah (1), Buena Vista (1); bar iron from the rolling mills at Richmond, Shenandoah (now under construction), Lynchburg, Roanoke and Richlands (now under construction); coke and semi-bituminous coal from the Pocahontas coal and coke field; superior gas coals from mines on the Clinch Valley Extension; glass sand near Tazewell and Buena Vista; Cotton from the markets of the Southern States, and wool from all the Western and Southwestern States and Territories, at advantageous freight rates. Favorable freight rates made upon raw materials to all factories established upon its line, as well as to points in the United States and Territories, upon the manufactured articles.

Those seeking new fields for manufacturing establishments should not fail to investigate the wonderful development of iron, coal and coke industries that has been made with the past five years along the line of the Norfolk & Western Railroad, and the advantages offered by the State of Virginia in the supply of raw materials, by the Norfolk & Western Railroad Company in the matter of freight facilities and rates upon raw materials, and reaching home, far distant and foreign markets, and by the cities and towns along its line in the way of advantageous sites at moderate cost. Many of the cities and towns exempt manufacturing establishments from taxation for a series of years.

For further information as to freight rates and sources of supply of raw materials, maps, pamphlets, etc., apply to

A. POPE, General Freight Agent,
or to CHAS. G. EDDY, Vice-President,
Roanoke, Va.

THE

Charles Town Mining, Manufacturing & Improvement Co.

The Second Public Sale of Lots by this Company

WILL TAKE PLACE AT ITS

New Hotel POWHATAN, on Wednesday and Thursday, NOVEMBER 4th and 5th, 1891.

TERMS OF SALE.—One-third cash, balance in one and two years, equal payments, with interest. Deferred payments to be evidenced by the promissory notes of the purchasers, and secured by deed of trust on the premises.

Fully paid-up shares in the capital stock of the company will be received by it at par for the deferred payments.

The following Manufacturing Plants are now in successful operation at this point, viz:

The Shenandoah Brass & Iron Works, capacity 250 hands.

The Getz Harness Factory, capacity 200 hands.

The Charles Town Glove Works.

The Vulcan Road Machine Works.

The Farrin Boiler Works.

Two Brick and Tile Factories.

Three Large Planing and Woodworking Mills.

A Tannery.

A Bark Mill.

A Creamery.

A Fertilizer Factory.

Grain Elevators, employing in the aggregate a large number of hands.

Many of these establishments are working up to their full capacity, with large orders ahead.

Several of the heaviest of them are located upon the Company's Belt Railway, one mile in length, fully completed, and connecting the tracks of the Baltimore & Ohio and Norfolk & Western Railroads.

The Company has recently sold a site on this belt line upon which is to be erected by the 1st of April, 1892, a fully equipped Planing Mill and Woodworking Factory of large capacity.

Many Dwellings and Business Houses have been erected and are in course of erection on the Company's land. Most of those completed are occupied, and there is not a vacant dwelling or store-room within the corporate limits of the old town.

The Company is negotiating for the erection of additional plants having an established business and employing several hundred hands.

Its proximity to the Eastern cities, its advantages as a Distributing Point, its rapid and steady growth, combine to make Charles Town a most promising point for Real Estate Investments.

The Town has an excellent water supply and is lighted with gas, whilst the contract for the erection of an electric-light plant is about to be awarded.

Trains leaving Philadelphia at 8 A. M., Baltimore at 9 and 10 A. M. and Washington at 10 and 11 A. M. arrive at Charles Town at 1.30 P. M., whilst numerous other trains by both roads afford rapid communications with important points East, West and South.

R. P. CHEW,

President.

JOSEPH TRAPNELL,

Vice-President

B. C. WASHINGTON,

General Manager.

S. LEE PHILLIPS,

Secretary.

A TOWN WITH A FUTURE.

Blacksburg and its Great Advantages—A Charming Hotel.

CHEROKEE INN, BLACKSBURG, S. C.,
October 10, 1891.

Where in the South is the best all the year-round climate to be found? This question was asked the writer several years since by a New England capitalist who wished to invest largely in the South. He said he desired to find an elevated location not far from the seaboard, on the line of some great railroad system, in a region where fuel and raw materials for manufacturing industries could be readily and cheaply obtained. It must be not more than 48 hours by rail from New York; it must have pure air and water, an equable climate—a place where men could work out of doors at all season without discomfort; in fact, he wished a location as nearly perfect as this world can supply, and he believed if there was such a place it would be found somewhere among the foothills of the Blue Ridge, or else in the trans-montane country behind it.

Every year since, and at all seasons, the writer has explored the South, covering much of Alabama, Georgia, the two Carolinas, Virginia and East Tennessee. Hundreds of localities that seemed at one season to exactly meet all requirements were at another found wanting in some essential particular of the many that made up the coveted perfection. Finally the writer settled down upon three localities—two in North Carolina and one in South Carolina—that most nearly covered all these requirements, and after repeated visits to these, he has reached the deliberate conclusion that the one place above all others is Blacksburg, S. C. The reasons for this conclusion are: 1st. Location; 2d. Climate; 3d. Abundance and variety of useful ores and minerals; 4th. The extensive region from which all kinds of timber can be obtained at prices favorable to manufacturers; 5th. Close proximity to great water-powers that can be utilized. As I have read during the past two years many communications to the MANUFACTURERS' RECORD setting forth the business opportunities of Blacksburg, I shall in this letter briefly recapitulate them, and devote the greater part of it to a statement of what, in my judgment, are the superior climatic conditions of this delightful place.

Blacksburg is the first station in this State on the Atlanta & Charlotte Air Line. It is 46 miles south of Charlotte, 221 miles north of Atlanta, 202 miles north of Augusta, 265 miles from Charleston, 115 miles from Asheville and 187 miles from Knoxville, with all of which cities it now has railroad connections by one or more lines. It also has, by several roads of the Seaboard Air Line System, facilities for reaching the seaports of Wilmington and Norfolk. The Charleston, Cincinnati & Chicago Railroad also passes through this place, running trains at present from Marion, N. C., to Camden, S. C., but in the course of a few months the separate links of that line will be completed, and then Blacksburg will be put in direct connection with the immense coal fields of Eastern Kentucky and the extreme western counties of Virginia. Work upon another road, the Cape Fear & Cincinnati is to commence at once, and as the funds for its construction have been provided, this will, within ten years, furnish a new and comparatively short route to both Charleston and Knoxville. With its existing transportation facilities, Blacksburg is well situated for a distributing point, and when the last two railroads shall be finished it will be second to no other point in the South as a center for manufactures. Moreover, the vestibule trains of the Richmond & Danville Railroad

stop here, enabling passengers from New York to reach this city in 16½ hours.

The useful ores and minerals in or near to this place are black magnetic, red and brown hematite and specular iron ores, some of which assay as high as 67 per cent. metallic iron, and all of which are of exceptional purity. In this district are found manganese, limestone, corundum, graphite, asbestos, soapstone, galena, tin, brick and fire-clay, barytes, granite, marble, cement and other things that could be utilized by manufacturers.

The virgin forests of the mountain, the Piedmont and the central counties of this State and North Carolina, within 100 miles by railroad of Blacksburg, are capable of supplying for years to come every variety of hard or soft woods that grow in the South that are prized by manufacturers, while both north and south, as well as to the east of this place, are cotton districts from whose annual crops a supply could be drawn sufficient for the consumption of all the cotton mills of New England.

The extensive shoals of the Broad river, distant at no point more than four miles from the railroad center of this town, were surveyed for the tenth United States census by Mr. George F. Swain, S. B., instructor in civil engineering in the Massachusetts Institute of Technology, to whom Gen. Francis A. Walker, superintendent of that census, intrusted the survey of the water-power of the South Atlantic watershed. In his official report Mr. Swain gave the statistics of four river systems in this State, viz., the Pedee, Santee, Edisto and Savannah. The Broad river is a tributary of the Santee. It contains many fine shoals, of which the finest for practical purposes are those nearest to Blacksburg. These are on the great bend of the river, covering about five lineal miles, in which distance the aggregate fall is about 100 feet, with an extreme drainage area of 2,400 square miles. In his report Mr. Swain said: "The undulating plateau of the Piedmont region has a pervious soil to an average depth of 50 feet or more, formed by the unusually deep disintegration of the metamorphic rocks, and presenting a mixture of sand and clay well adapted for the absorption of rain-water. The streams have cut their channels down to the underlying beds of rock, and it is along their surface that constant supplies of water held in reserve by the permeable soil of their water-sheds are received, thus adding largely to the amount and the regularity of their flow."

The official hand-book of South Carolina contains the following: "The rocky beds of these streams afford everywhere good sites and permanent foundations for mill-dams, while the high angle at which they cross the ledges of rock increases the perpendicularity of the fall, and presents a clean, smooth edge, adding to the facility with which the water power is made available. * * * The metamorphic rocks laid bare on the banks of the streams furnish material for dams and buildings of the best quality."

Repeated examinations of the shoals of Broad river in close proximity to Blacksburg have satisfied the writer that the statements he has quoted were exceedingly conservative, while reports of civil engineers made recently that have been shown him more than confirm Mr. Swain's large estimates of the minimum and maximum with storage of available power. In these days of applied electric energy, enough power can be generated from these nearby shoals and transmitted by wire to Blacksburg to run all the mills and factories that can find ground room anywhere near the tracks of its two railroads, and leave plenty to spare for public and private illumination.

The climate of Blacksburg comes nearer to that desired mean of Northern home-seekers in the South than any I have found. This is attributable in part to its altitude,

which compensates for its latitude; in part to its nearness to the Blue Ridge and its spurs, which shut off bleak winds; in part to the undulations of the surface and to the geological formations, which afford a perfect surface drainage, and finally, to its pure freestone and its many mineral waters.

To Northern men this will be apparent when I state that while the flora of this region exhibits many varieties of plants and trees peculiar to less elevated Southern latitudes, yet there are many others of both, as for instance the different varieties of golden rods and asters that are among the well-known flowers of Northern roadsides and fields in the late autumn, as well as the yellow violets, the ox eye daisies and the honeysuckles that bloom in the earlier months. So of trees. Ash, chestnut, hickory (both shag and smooth bark) are to be found in the forest alongside of the white ash, the sugar maple and the tulip trees. In the fauna of this section there are the same similarities. The rabbits and squirrels, the minks, otters and foxes are so nearly akin to the New England denizens of the forests and rocky ledges that none but a scientist could detect the very slight differences that exist. These are nature's proofs of what I have asserted.

The average elevation of the town-site proper is 900 feet above the sea, but rising above this are hills, ridges and one mountain, called "Whittaker," that afford opportunities for reaching any desired elevation, while yet within 15 minutes' drive of the railroad passenger depot.

Long before the Atlanta & Charlotte Air Line was constructed the value of the mineral waters here was appreciated. People from the low country, their systems full of malaria, used to come here and camp out in the late summer and early autumn to get rid of their ills, and tradition says that at an earlier day it was one of the favorite health resorts of the aborigines. Whether this is so or not there are no satisfactory records to determine, but as it is a well-established fact that the red men were well acquainted with the potentialities of natural mineral waters, and that whole tribes were accustomed every year to journey long distances that they might receive benefits from them, it is altogether probable that this tradition has as good a foundation in fact as any other of the hundreds that exist in the South. But be this fact or myth, the mineral springs are here, sulphur, lithia, magnesia, chalybeate and what not, and there are old families in South Carolina's lowlands that annually come here, as their immediate ancestors did, to get cured of dyspepsia, of malaria, of eczema and of the thousand and one ills that flesh is heir to by drinking from some one of these health-imparting springs. The odd thing about it is that while the virtues of these various waters have been known for generations, no one has ever attempted to make merchandise of them. Here, for instance, is one welling up in a ravine within a stone's throw of the railroad depot, which contains to every official gallon 29.96 grains of solids, consisting in part of chlorine, oxide of iron and alumina, lime, magnesia, sodium, potassium, sulphur trioxide, carbonate of lithium and other salts. People send demijohns here from distant places to be filled. Its water, like salvation, is free to all comers. A battered tin cup is kept on its stone curb for every partaker, and in the course of a season hundreds of citizens and strangers go there to drink. One of these days the genial owner, of that fine old Scotch-Irish stock that originally settled the Piedmont region of South Carolina, intends to make something out of this spring, but meanwhile it is free to all.

One reason why Blacksburg has not had the wide repute it is entitled to has been that there was no modern first-class hotel here. The two small houses for the enter-

tainment of travelers were each kept as well, in fact, rather better than are the average of village hostelrys in the South, but neither of them had the comforts and the elegancies that the tourists of this day expect and pay for gladly. But within a year this objection to a stay here has been removed by the enterprise of Major John F. Jones, formerly of Springfield, Mass., who came here as an expert railroad builder and manager in the interest of the Massachusetts & Southern Construction Co., which undertook to build the Three Cs Railroad. Major Jones made up his mind after two years residence to make this city his permanent home, and to bring capital here for the development of its unsurpassed natural resources. As he knew capitalists would not stay long in the place unless they had home comforts, he built on a commanding knoll within three minutes' walk of both the railroad stations a beautiful hotel that he named the Cherokee Inn. In its furniture and appointments, as well as in its situation, this hotel is a surprise and a delight to every visitor. The commercial travelers of this country have found out its merits and are sounding its praises abroad, and no class of men are better judges than they of the excellencies or the opposite of public houses. Major Jones is an exceedingly busy man, having many large and important interests requiring his attention. To make sure that the Cherokee Inn should reach and maintain the high standing he had in mind, he secured as its manager Mr. F. B. Alvord, formerly of the Arlington, of Washington, D. C., and more recently of the Hotel Kaaterskill, the largest summer mountain hotel in this country, and possibly in the world. Mr. Alvord has held important positions in other hotels in New England and in Cincinnati, and understands the needs and the tastes of Northern people. From the number of guests already booked for the winter it is certain that the Cherokee Inn will be filled from after the holidays until the spring of 1892 is well advanced.

In March, 1890 the writer met here a gentleman connected with one of the largest publishing houses in Massachusetts, who had been spending the winter here to recruit. He said that during the entire period there had been but three days when the weather had been so uncomfortable that he could not sit out upon the porch of his boarding place. Other Northern people who have settled here not only corroborate that statement, but tell me that the winters, despite occasional chilly rains, and now and then at long intervals a flurry of snow, are, as a whole, perfectly enjoyable, while their health through the remainder of the year is better than it used to be at their Northern homes.

The foregoing are some of the reasons why the writer believes that Blacksburg is the best place in the South for Northern people, whether tourists, health-seekers or settlers.

Contracts for Another Tinplate Factory.

Despite the denunciations of the papers that are seeking to prevent the establishment of the tinplate industry in this country, shrewd business men who fully understand what they are doing are going right ahead building tinplate mills. A large number are under construction, and contracts for the machinery for another have just been awarded. The Pittsburgh Dispatch reports that "the American Tinplate Co., of Ellwood, Ind., let the contracts for their plant on last Saturday. The Robinson-Rea Manufacturing Co., of Pittsburg, was awarded the mill contracts. The tinning department will be built by the Lloyd Booth Co., of Youngstown; William Tod & Co., of the same place, will put in the engines, and the Sterling Boiler Co., the boilers. Work on the plant will commence at once, and it is expected that tin will be made early next spring."

MINNEAPOLIS, VA.



Minneapolis is Under the Management of GEN. THOMAS L. ROSSER, Builder of the Northern Pacific and Canadian Pacific Railways.

Resources.

Coal and Iron, both in Inexhaustible Quantity and Unexcelled Quality, In juxtaposition. In the Center of a District Composed of Five Counties, Containing More Timber Than Minnesota and Wisconsin Combined.

Advantages and Attractions.

A Healthy and Beautiful Situation in a Valley 2,000 feet above Sea Level, Surrounded by Mountains.

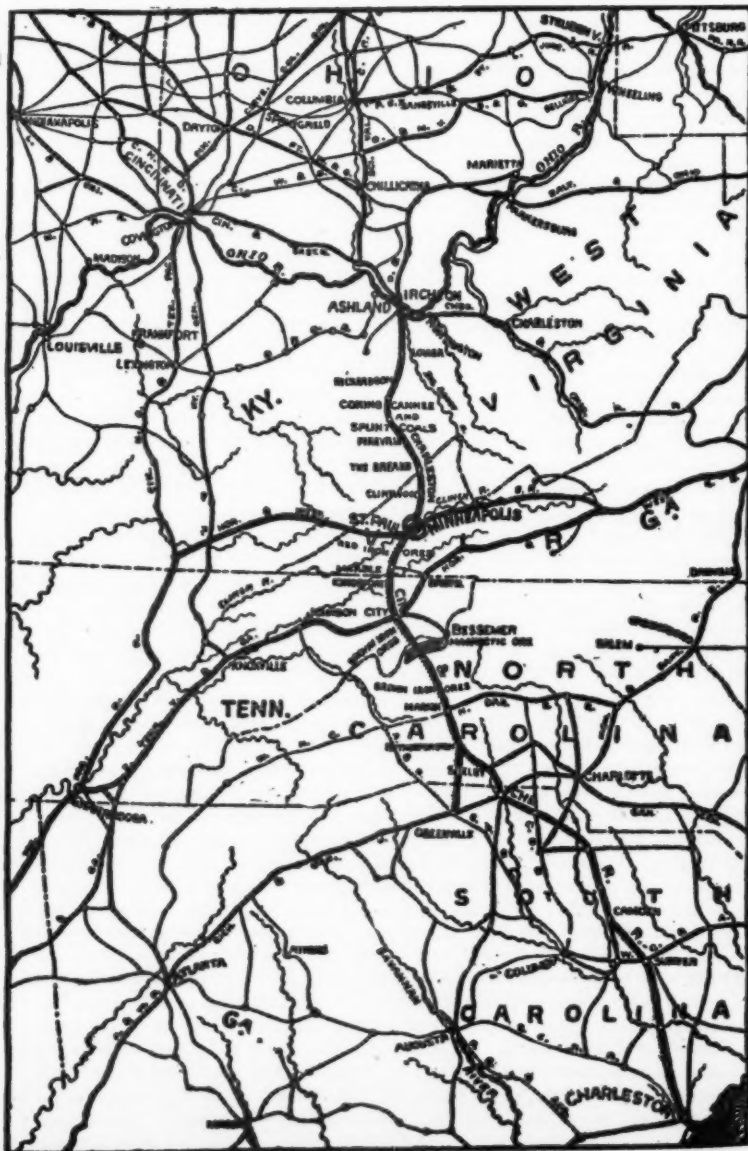
Encircled by a Large Bold Stream, ample for Water, Drainage and Power.

The Crossing Point of the Norfolk & Western and the Three C's, the Future Great East and West and North and South Trunk Lines.

INDUSTRIES FROM ALL SECTIONS

Are now Seeking a Location at Minneapolis on Account of the Minimum Cost and Maximum Quantity and Quality of Raw Materials, the Fine Transportation Facilities and the Healthfulness and Beauty of the Site.

JOHN M. WHITE, Treasurer,
CHARLOTTESVILLE VA.



FOR SALE. ✕ ✕ FOR SALE.

IN WHOLE OR PART,

1,000 Acres of Beautiful *and* Well-Drained Land

Adjoining the Limits of a City with 100,000 Inhabitants,

HAVING WATER AS WELL AS RAILROAD SHIP-
PING FACILITIES. THE PROPERTY
IS WELL-WATERED AND ELEVATION GOOD. A
RAILROAD PASSES THROUGH
THE MIDDLE OF THE PROPERTY. AFFORDING
EXCELLENT SITES FOR FACTORIES

**✕ There are Twenty Dwellings and Three Manufacturing Establishments
Upon the Property.**

THE LAND IS PLATTED AND OTHERWISE IMPROVED.

**✕ This is a GOOD CHANCE for a syndicate and will not be on the market long.
TITLE GUARANTEED. Address**

SYNDICATE, Care Manufacturers' Record.

As A LOCATION for Manufactures

Of Iron and Wood and for General Industrial and
Business Enterprises.

FRONT ROYAL, VA.

INVITES INVESTIGATION.

Its location, at the junction of the Norfolk & Western Railroad (Shenandoah Valley line and the Richmond & Danville's branch, give it excellent transportation facilities. It is only a few hours' ride distant from Washington. The Norfolk & Western's direct line to Washington will be built from Front Royal.

There is no Finer Agricultural Country in the World than the Famed Shenandoah Valley, in which Front Royal is Located.

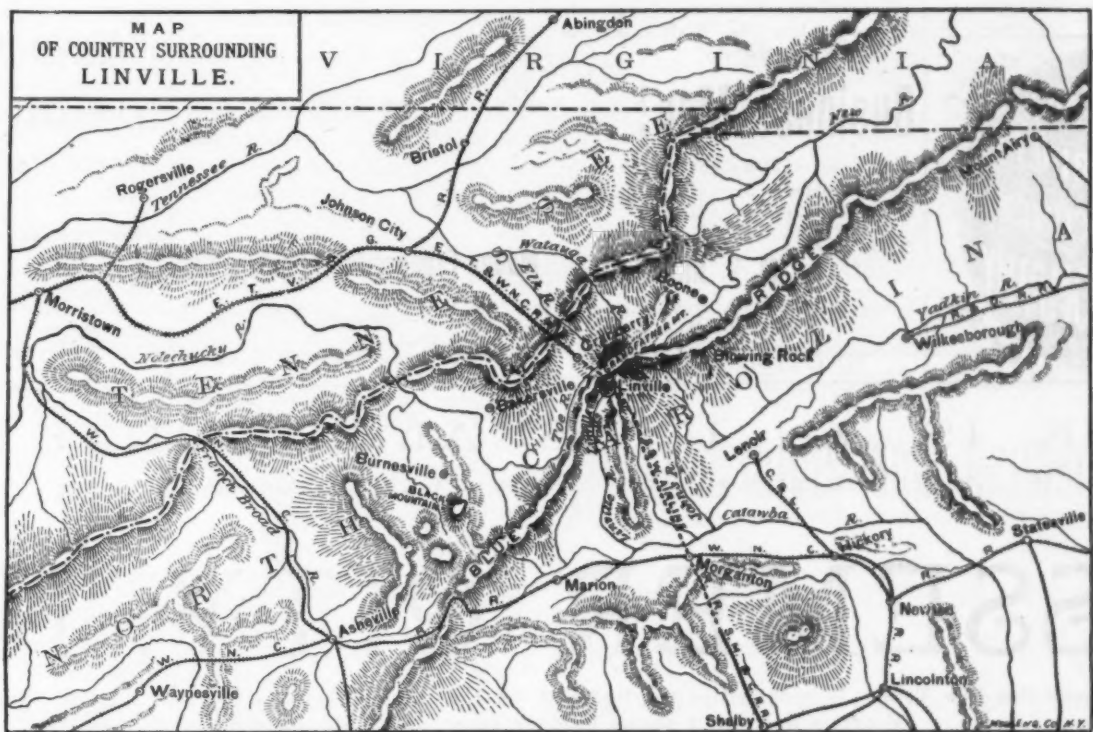
A WIDE RIVER WITH SWIFT CURRENT FURNISHES WATER POWER
AND MAKES DRAINAGE PERFECT.

Front Royal is a Prosperous Town, with an Extensive Mercantile Business
and Many Manufacturing Enterprises in Operation and
Under Construction.

INVESTIGATION OF ITS ADVANTAGES IS INVITED BY THE

Front Royal--Riverton Improvement Company,

FRONT ROYAL, VIRGINIA.



THE NATIONAL CORDAGE COMPANY.

October 6, 1891.
The Directors have this day declared the regular quarterly dividends of TWO PER CENT. on the preferred, and TWO AND ONE-HALF PER CENT. on the common stock of this company, payable November 3 at the transfer office of the company 132 Front street, New York. The books will close October 15 and reopen November 3.
E. M. FULTON, Treasurer.

JNO. C. ROBERTSON,
18 Times Building,
RICHMOND, VA.

Large tracts of timber and mineral lands for sale throughout the South. Correspondence solicited.

MANUFACTURERS!

The Jellico Tannery has 28 acres of land, south of and adjoining the Knoxville & Ohio Railroad, which they will deed any part of, or all, to any manufacturing plant, for manufacturing purposes, for one dollar per acre.

B. A. CONNELLY,
JELICO, TENN.

D. G. THOMAS. T. G. McCONNELL.

ABINGDON

Real Estate Exchange & Insurance Agency
a Specialty.

COAL, Iron, Mineral and Timber Lands
a Specialty.
LIFE, ACCIDENT & FIRE INSURANCE.
We represent some of the strongest companies in both Fire and Life Insurance.

THOMAS & McCONNELL,
ABINGDON, VA.

**SPECIAL ATTENTION**

GIVEN TO

INVESTMENTS

IN THE

SOUTH.

Parties desiring to interest Eastern investors in good Southern enterprises are invited to call at my office or correspond with me.

W. P. RICE,

Room 208 (Washington Building),

No. 1 Broadway, New York City.

Manufacturers!

If you are seeking desirable locations, communicate with the undersigned. Special inducements are offered new enterprises in the growing towns along the Baltimore & Ohio Railroad.

Business Men!

Opportunities for the establishment of Profitable Lines of Business are made known on application.

ADDRESS

M. V. RICHARDS,

Land and Immigration Agent Baltimore & Ohio Railroad,

BALTIMORE, MD.

Fruit & Vegetable Canners

The cheapest, most efficacious and economical system for putting up high standard goods is the

MUDGE**PATENTED PROCESS**

Large Plants Furnished, also Family Processors on the Same Principle.

STATE RIGHTS FOR SALE FOR EITHER OR BOTH PATENTS.

REFERENCES:

CHESAPEAKE FRUIT PACKING CO., of Baltimore.

ADDRESS

Mudge Process Fruit Packing Co.

210 E. Lexington St., Baltimore.

Charles F. Mudge, General Manager.

—WRITE FOR—
PROSPECTUS AND PRESS OPINIONS

THE SECRETS OF CANNING,
A PRACTICAL BOOK FOR CANNERS.
J. MURPHY & CO., Baltimore, Md.

THE BRADSTREET Mercantile Agency

WAS ESTABLISHED IN 1849.

Is the oldest and financially the strongest organization of its kind, working in one interest and under one management, with more capital invested in the business, and expends more money every year for the collection and dissemination of its information than any similar institution in the world. Its reports are considered in the light of a guide by both investors and those contemplating the granting of credit. In addition to a large corps of skilled employees, more than one hundred thousand correspondents contribute the result of their investigation and opinions. Subscriptions are annual, and may commence at any time the subscriber elects. Details as to prices and terms will be furnished upon application.

CHARLES F. CLARK, President.

Baltimore Office - American Building,
H. KERSHAW, Supt.

VIRGINIA

"The Bonanza of the Future."

The Coming Iron District of the United States.

For maps, reference book, pamphlets, etc., descriptive of the wonderful mineral and agricultural resources of the State apply to agents of the Norfolk & Western Railroad, 290 Washington street, Boston; 303 Broadway, New York; 1423 Pennsylvania avenue, Washington, or to General Office, Roanoke, Va.

HERE IS AN UNUSUAL OPPORTUNITY

TO GET IN AT THE FOUNDATION OF A STEEL-MAKING CITY.

BESSEMER CITY, N. C.

Is the name of this New Town. It is located on the Piedmont Air Line, 28 miles west of Charlotte, 6 miles north of King's Mountain, and near a station formerly known as All Healing Springs.

The Bessemer City Mining & Manufacturing Co.

Has the following officers, whose business standing is the strongest possible indorsement of the validity of the enterprise:

President, EDWIN MICKLEY, of the Thomas Iron Co., of Pennsylvania and Alabama.

Vice-President, JULIAN S. CARR, manager and principal stockholder of the Blackwell Tobacco Factory, Durham, N. C.

Secretary and Treasurer, J. A. SMITH, tobacco manufacturer and mineral expert, formerly of Virginia.

The Company owns over 3,000 acres of Mineral, Timber and Townsite Property, which is being substantially and rapidly developed. Besides gold-bearing quartz, which can be mined at a profit, a remarkable deposit of glass sand, a mountain of whetstone rock and the best of building granite, there are on the property ten iron mines, the ores of which all run from 54 to 68 per cent. iron, have less than .05 per cent. of phosphorus, and are free from sulphur, titania, copper and arsenic.

These facts are ascertained not by analyses of handfuls of selected specimens, but are furnace returns on car-loads and 500-ton lots.

The most superficial investigator will understand what it means to have real Bessemer ores in unlimited quantities on the line of one of the great railroads of the country and under the management of responsible, practical and energetic business men.

It means that there is a new iron and steel manufacturing city permanently on the map.

It means that a town of 5,000 to 10,000 people will be there in less than ten years.

It means that the capital stock and town lots of the Bessemer City Mining & Manufacturing Co. are going to prove an uncommonly good investment.

NOT A MERE TOWN LOT BOOM.

And more especially is this certain from the fact that this scheme is not a mere town lot boom. The Company has already expended more than a quarter of a million of dollars on the property, and besides work on streets, buildings and such improvements, are putting in the best mining machinery; are sinking new shafts, and from the old ones are regularly shipping ores North at a good profit. A careful calculation shows that enough can be earned by mining and shipping the ores of one alone of the Company's mines to pay a handsome dividend on the entire capital stock of the Company.

Do you know a better test of values than the dividend-earning power of a property?

The capital stock of the Company is \$650,000 only. Half of this is offered for sale and will be declared fully paid and non-assessable when 50 cents on the dollar has been paid. The proceeds from this sale of this stock will be invested in industries, a bank, etc., on the Company's property, the management subscribing for half of such stock to the amount of \$325,000.

Mr. John H. Inman, of New York, president of the Richmond & Danville Railroad System, has entered into a contract to take 20 per cent. of the capital stock of any and all manufacturing enterprises (including a furnace and steel plant it is the intention to erect) which shall be located in Bessemer City during the next three years.

In order to expedite the development of the townsite, as well as enhance the value of the remaining property, alternate lots will be deeded to purchasers of fully paid shares of stock.

\$500 to \$1,000 a week is now paid out to miners, carpenters, mechanics and laborers at work on the Company's property. Isn't that a pretty fair nucleus to begin a town with?

Have you seen a proposition lately possessing more merit or attractive features?

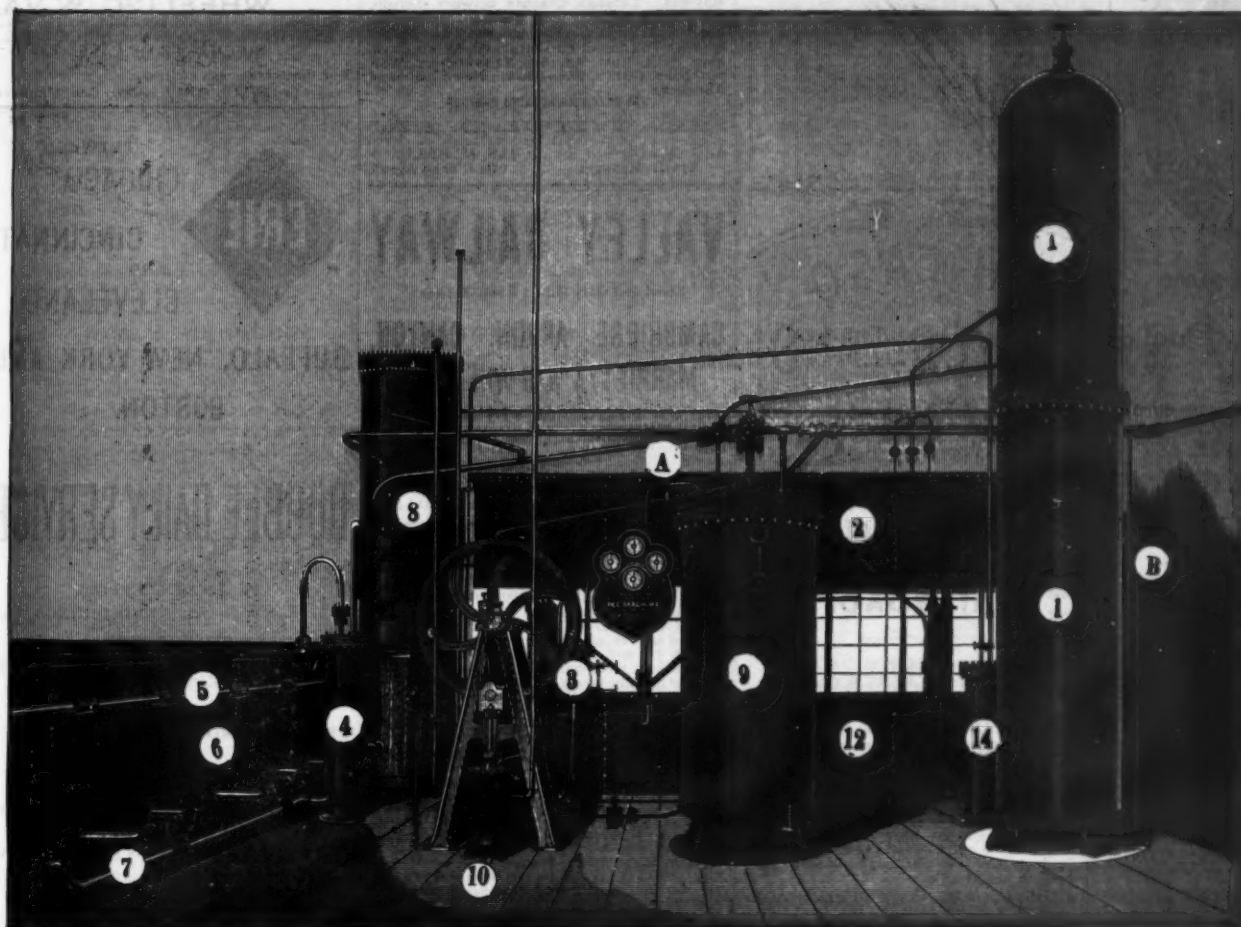
The Company has issued a pamphlet modestly but more fully describing the property and plans of operation, together with a description of the climatic, scenic and other advantages of this favored section. Write for it to

J. A. SMITH, Sec'y and Treas., King's Mountain, N. C.

(After November 1st, BESSEMER CITY, N. C.—Postoffice there not yet opened.)

Columbus Iron Works Improved ABSORPTION ICE MACHINE.

BUILT BY THE **COLUMBUS IRON WORKS CO., Columbus, Ga.**



Successors to
H. D. STRATTON & CO.
Established 1851.
Incorporated 1896.
W. R. BROWN, President.
W. COOK, Superintendent.

Machines from 5 to 33 tons capacity per 24 hours, or larger if desired.

94 Machines

built, and all in successful operation.

More Ice Making Machines Sold in the South than any other establishment.

No expensive building required.

No pressure on machine when stopped.

Send for price-list and illustrated circular with location of machines.

This establishment was the first to turn out a perfect and complete Ice Machine, and has been in the business 47 years, constantly manufacturing and improving, and are prepared to furnish the most reliable and economical machine in the market.

JAMES D. CARDELL & CO.

PIPE BENDING WORKS,

Philadelphia, Pa.

Coils of
WROUGHT IRON PIPE
for
ICE and REFRIGERATING
MACHINES,
CHEMICAL WORKS,
SOAP WORKS,
BLAST FURNACES.



Coils of
Any Desired Length
of
WELDED PIPE.
—
PIPE BENDING
and
WELDING A SPECIALTY

FARRELL & REMPE, Manufacturers of

Wrought Iron Pipe Coils

Ice and Refrigerating Machines.

COILS OF ALL DESCRIPTIONS FOR
Heaters, Soap Makers, Chemical
Works, Blast Furnaces, &c.

PIPE BENDING of All Kinds A SPECIALTY.

799, 801, 803 & 805 OGDEN AVENUE,
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HOWARD HYDRAULIC CEMENT.

For information and prices write to
HOWARD HYDRAULIC CEMENT CO., Chattanooga, Tenn.

Manufacturers and Builders

X

Should not lose sight of the fact that our material has been well established and a favorite with the public for years. Why experiment with the untried? Why "fool" with so-called "cheap" stuff?

Our line embraces all the time-tried and desirable styles, the different sizes of Corrugated Roofing and Siding, Standing Seam, Roll and Cap, V Crimp and Outcalt Patent Plain Roofings; also the the best and most practical in Arches, Ceilings, Metallic Lath, etc., etc

Address for samples, estimates, etc.

THE CINCINNATI CORRUGATING CO.

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CASH CAPITAL, \$1,000,000.

**Employers' and Public
LIABILITY.
Boiler Inspection
AND
INSURANCE.**



LARGEST TYPE AND ELECTROTYPE FOUNDRY AND PRINTING SUPPLY HOUSE SOUTH OF PHILADELPHIA.

Our Type is now used by The Baltimore Sun, Washington Post, Critic, Herald, Public Opinion, and nearly all the leading Newspaper and Book Offices in this vicinity. Send for estimates.

JOHN G. MENGEL & CO.

No. 111 E. GERMAN ST., BALTIMORE, MD.

FAST TRAIN LINE.**Cleveland & Canton R. R. Co.**

Newly Rebuilt to Standard Gauge.

New and Elegant Pullman Palace Cars. Heated by Steam from the Locomotive. No Stoves. No Danger from Fire. Three Fast Trains Each Way Daily between Cleveland and Canton. Two Fast Trains Each Way Daily between Cleveland and Zanesville. No change of Cars between Cleveland and Zanesville. J. W. WARDWELL, Gen. Supt. ALBERT ROKUSEK, Gen. Pass. Agent.

WHEN YOU GO SOUTH,

Be sure you are ticketed via Lexington and the Newport News & Mississippi Valley Railway Eastern Division, penetrating the famous blue-grass region of Kentucky—the garden spot of the world. Tickets on sale at all railroad ticket offices.

CHAS. L. BROWN,

Genl. Passenger Agent, Lexington, Ky.

ATLANTIC TRANSPORT LINE.
BETWEEN BALTIMORE AND LONDON.
Calling at Swansea and Philadelphia on the outward passage.

S.S. Minnesota, 5,000 tons. S.S. Missouri, 4,200 tons.
S.S. Maryland, 4,200 tons. S.S. Michigan Bldg.
S.S. Montana, 4,200 tons. S.S. Mississippi, Bldg.
S.S. Maine, 4,150 tons.

BALTIMORE STORAGE & LIGHTERAGE CO.
235 La Salle Street, and 10 Fenchurch Street,
Chicago, Ill. London.
400 Second Street, Baltimore, Md.

POPULAR AND DIRECT ROUTE.**THE BAY LINE**

**For Old Point Comfort, Norfolk
and the South.**

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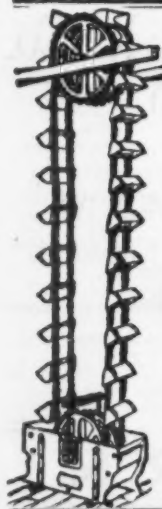
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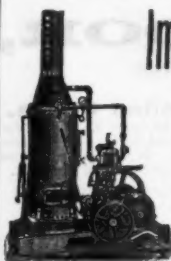
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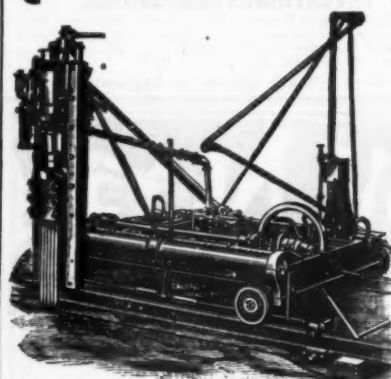
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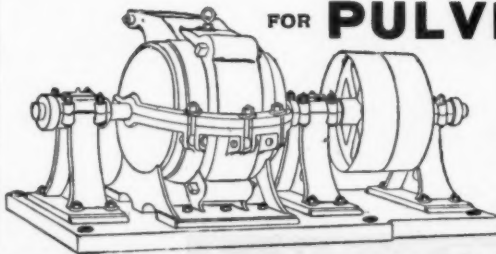
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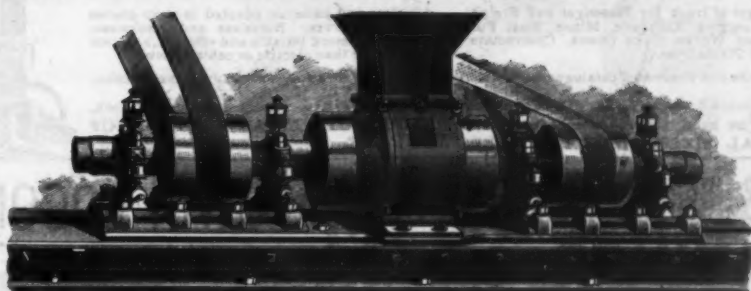
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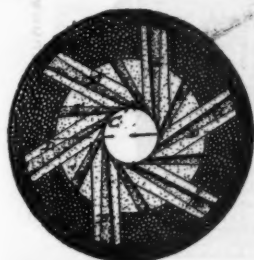
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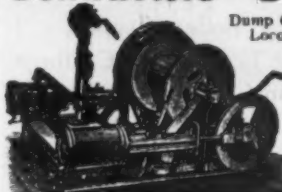
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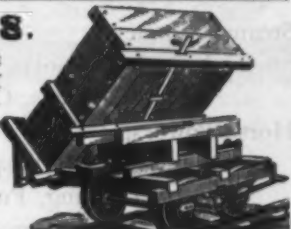
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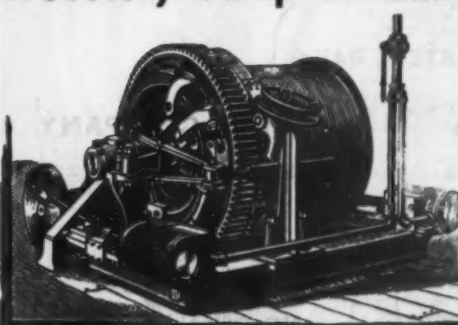
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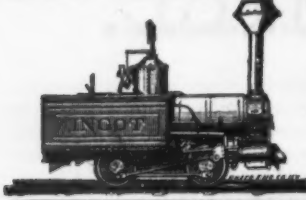
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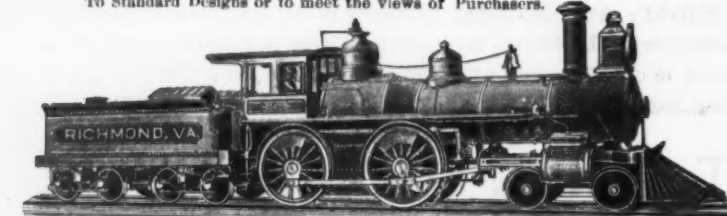
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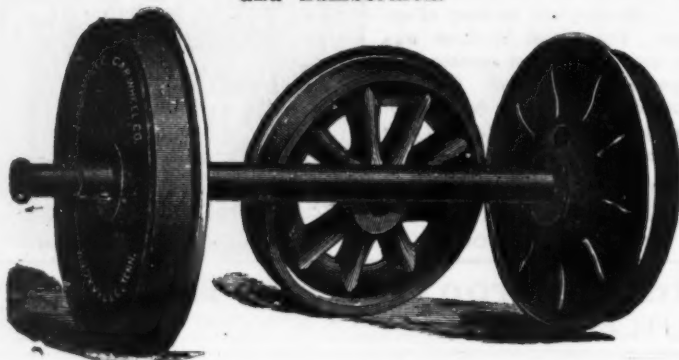
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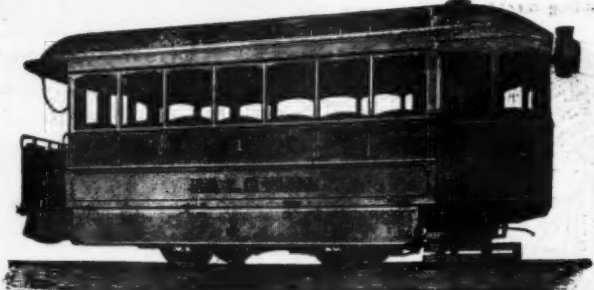
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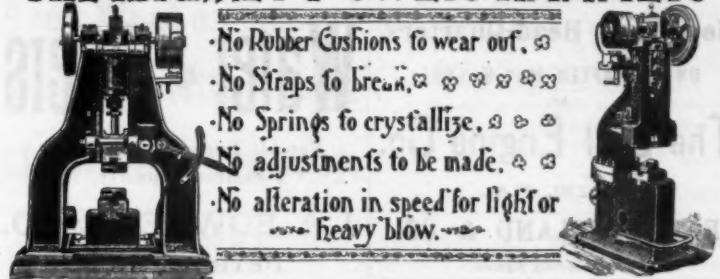
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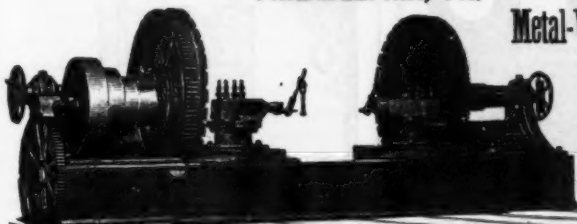
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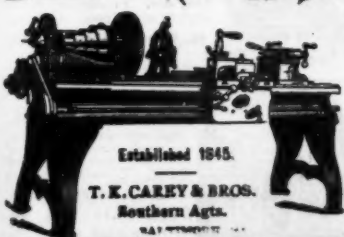
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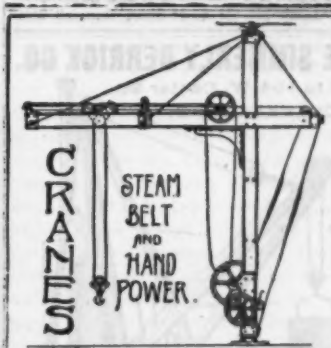
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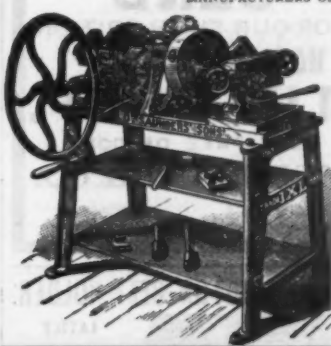
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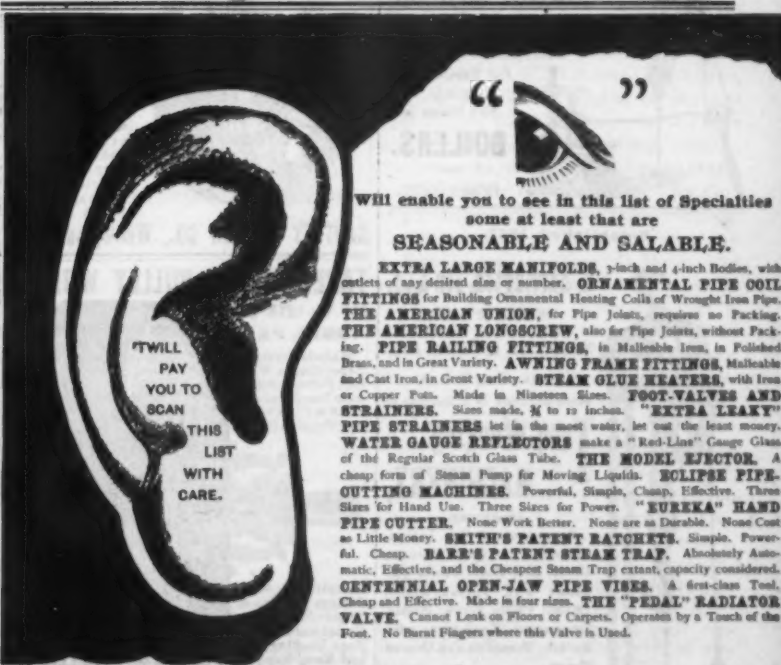
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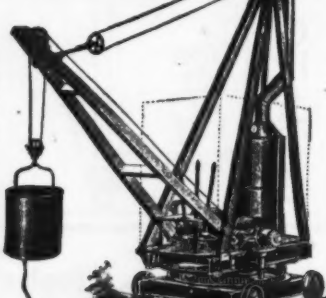
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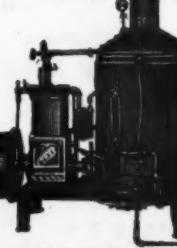
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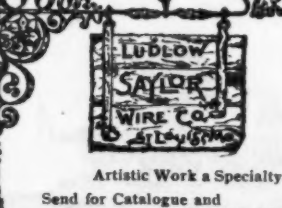
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XUM:

The Markets.

OFFICE MANUFACTURERS' RECORD,
BALTIMORE, October 21, 1897.

A slight reaction, or what to day has the appearance of being a reaction, has set in in the iron trade, but it will probably prove to be one of those sudden and insignificant movements which very often characterize an improving market. The statistics of production show an increase which is a little greater than was expected in some quarters. Pig-iron makers in all sections of the country are anxious to increase their production and to get better prices. Preparations have been made within the past month for the blowing in of a good many idle furnaces. Repairs have been going on in many quarters with a view of profiting by an increased output at a somewhat reduced price. The general markets of the country are in satisfactory shape, but it would require very little rashness to unsettle confidence. Iron and steel markets recognize this fact. Our advices from several Southern points show that there is a satisfactory distribution of crude iron at all points. Buyers are not rushing in their orders for forward delivery perhaps just as fast as makers would like, but there is no accumulation of stocks as yet to depress quotations. In the Northwest there is activity for charcoal irons, and all through the Ohio valley our advices are to the effect that there is a steady distribution, and in some instances large orders have been placed for the winter. Pennsylvania markets are quiet, but still there is a great deal of iron selling. Prices seem to have gotten into a rut. Here and there sales are made below market prices, but these concessions do not refer to the finer makes. There is not that activity in the bar mills that we are accustomed to see at this time, but still an immense amount of bar iron is being made, and prices range from 1.60 to 1.75. Merchant-steel makers report moderate activity. Sheet-iron makers continue to do very well. Wrought iron-pipe makers are obliged to put up with small orders. The meetings in certain branches of the iron trade during the past week show the need of careful management in trade matters. While this is true, manufacturers and brokers all recognize the possibility of an unexpected improvement in demand at any time; in short, a surprise is looked for. It may not come for weeks, but the conditions are favorable to a sudden expansion of demand, not, of course, to booming proportions, but simply to such proportions as are natural to a steady growth of confidence. Steel rails are still strong at \$30. Large orders have been placed for structural and plate iron and steel. In Philadelphia work begins shortly on an elevated road which will give one works, the Phoenix, all it can do for some time to come. Another mill near Philadelphia is full of orders for the Reading terminal. There is other work of similar character looming up which will no doubt add to the activity in that branch of trade. Material intended for agricultural implements is in good demand in the West. Market conditions continue rather stringent than easy. Financial articles speak of lower rates of money in the East, but in ordinary business channels stringency is the rule rather than the exception. Buyers in all directions keep in mind the fact that producing capacity is abundantly able to meet all demands.

HARDWARE.

We are glad to learn that there is a decided improvement in collections South, and while the merchants are still buying only what their necessities require, owing to the increased demand from the smaller trade, the volume of business is larger and the outlook correspondingly brighter. There have been few, if any, changes

during the past week except on common carriage bolts, which were advanced at the Cleveland meeting the first of the week to 70, 12½ and 10% discount, the quantity extras remaining unchanged. We regret to have to chronicle the death of Wm. H. Barney, the senior member of the firm of Barney, Cavanagh & Long, of Mobile, Ala., one of the leading firms in the South. Mr. Barney was generally known to the manufacturers North and East, and on account of his many genial qualities and correct business methods endeared himself to all who had the pleasure of his acquaintance.

Do you want some second-hand cotton machinery? It is in good running order. See advertisement of Davol Mills, Fall River, Mass., on page 48, and write them for prices, terms, &c.

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BELT MANUFACTURING CO.
Manufacturers of Oak Tanned and Rawhide Leather Belting, Lace Leather, Picker Leather, Ropes, Lariats and other Rawhide Leather Goods.
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Thacher Patent Belt Fastener.



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FOR THE BEST MILL
FOR GRINDING AND DISINTEGRATING
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CORRESPOND WITH
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BEST YORKSHIRE BAR IRON,
The best material for S'aybolts, Piston Rods, Crank Pins, etc.

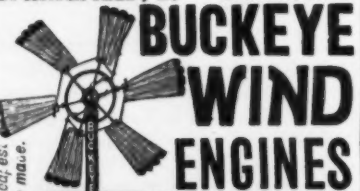
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11 and 13 Oliver Street, BOSTON.
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MAST, FOOS & CO.
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BUCKEYE WIND ENGINES
Strong and Durable; simple in construction; and will be sold as cheap or cheaper than any other first-class Engine. The

BUCKEYE FORCE PUMP
Works easily and throws a constant stream. Has Porcelain lined and Brass cylinders. Is easily set. Is the BEST FORCE PUMP IN THE WORLD for Deep or Shallow Wells. Never Freezes in winter. Also manufacturers of the Iron Turbine Wind Engines, Buckeye Force Pumps, Buckeye, Globe & Champion Lawn Mowers, Buckeye Wrought Iron Fencing, Cresting, &c. Write for circulars and prices.

We Guarantee DIXON'S BELT DRESSING
to Prevent Slipping and Preserve the Leather.
Send for Circular and Testimonials. **JOS. DIXON CRUCIBLE CO., Jersey City, N. J.**



Southern Agents.—L. M. Rumsey Mfg. Co., St. Louis, Mo.; Smith-Courtney Co., Richmond, Va.; Atlanta Rubber Co., Atlanta, Ga.; Baker, Sloo & Co., New Orleans, La.

The "Original Candy"
Sewed Cotton Duck Belting,
Especially adapted for Main Drivers, Saw Mills, Cotton Gins, Cotton Presses, and for all places where belts are subjected to moisture or atmospheric changes, the "CANDY" stands paramount.
For further information, prices, etc., write
The Candy Belting Co.
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THE BEST & CHEAPEST
BELTING
IN THE WORLD
STITCHED CANVAS BELTING
THE CHESAPEAKE BELTING CO.
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The Chicago Rawhide Mfg. Co.

MANUFACTURERS OF
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ROPE, LARIATS, FLY-NETS,

Picker Leather, Stock and Farm Whips, Washers, Hame Straps, Hame Strings, Halters and other Rawhide Goods of all kinds, by Krueger's Patent.

This Belting and Lace Leather is not affected by steam or dampness; has more grip than any other; never becomes hard; is stronger, more durable and the most economical Belting made. Especially adapted for the Southern trade on account of its resistance to moisture. The Rawhide Rope for Round Belting Transmission is SUPERIOR TO ALL OTHERS.

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FILLED LEATHER BELTING
IT BELTS THE EARTH AND MAKES THE MOON SPIN LIKE A TOP
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Leather Woven Link Belt
ALL LEATHER
NO IRON ROD OR HINGE, OLD STYLE
LEATHER LINK AND IRON ROD BELT
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SAVE YOUR POWER. YOUR BELTS. YOUR MONEY.
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OUR BELTING IS TANNED ON THE SURFACES ONLY. INTERIOR IS RAWHIDE. THE ONLY PERFECT BELT MADE. NO SLIPPING OR LOST MOTION.
RAWHIDE LACE LEATHER AND PICKER LEATHER.
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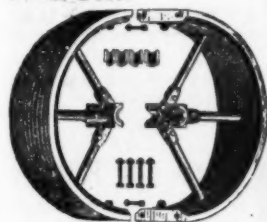
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For Cotton Seed Oil Mills, Phosphate and Fertilizer Works, Ginneries, Starch Works, Sugar Refineries, Cement Works, Rice Mills, Grain Elevators, Flour Mills, Etc.



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Wood Split Pulleys,
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Will Not Slip on
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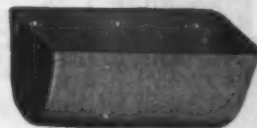


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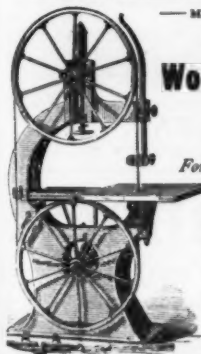
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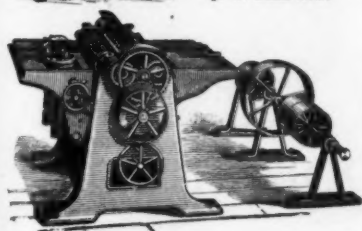
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Has 1 in. Steel Spindle,
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Extension Crank, 12
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DRILLS 1/2 IN.
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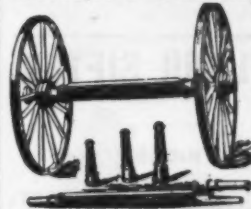
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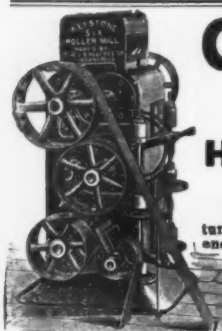


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Send 6 cents in stamps
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Sifter showing how large
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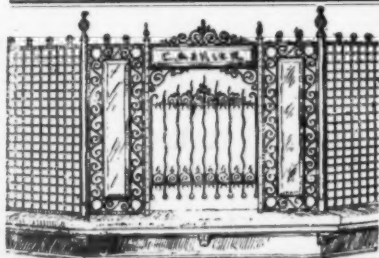


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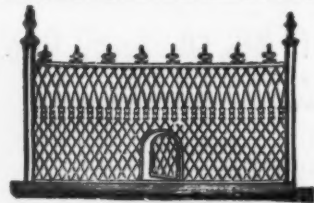
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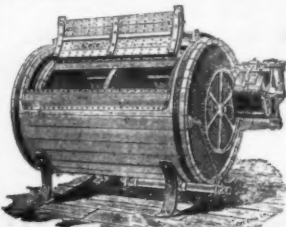
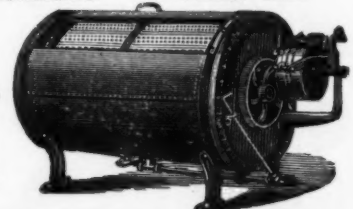
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The World's Favorite Adjustable Eave Trough.
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No right or left hand in ordering our Trough. It is always Right and made from the Best Galvanized Sheet Steel and Copper, in 8-foot lengths. Write for Descriptive Circulars and Price-Lists. Special Discounts to jobbers.

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These wheels can be bought of our agents or ordered direct.

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Solid Emery and Corundum Wheels, to Run Wet or Dry, Special Shapes.

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SEND FOR PRICE LIST.

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Complete Illustrated Catalogue mailed free upon application.
NORTON EMERY WHEEL CO. WORCESTER, MASS.
THOS. K. CAREY & BROS.
26 Light Street, Baltimore, Southern Agents.

Write us **LATEST IMPROVED SLIP JOINT EAVE TROUGH,**
LONGEST IN THE WORLD, GOES TOGETHER EASILY, NO SOLDER REQUIRED. BEST CONDUCTOR, HANGERS, ETC.
MADE BY **THE CANTON STEEL ROOFING CO., CANTON, O.** PAT'D 1889

Eastern Lumber Markets.

[Special Cor. MANUFACTURERS' RECORD.]

NEW YORK, October 20, 1891.

Prices of lumber have averaged but little, and in instances where lower prices have been taken, large orders have been placed. Hardwoods are in moderate demand at this and all other Eastern markets. The export trade is fair, and indications point to some improvement. Both plain and quartered oak have had a good run for a month or more, but exclusively among retailers; for some reason wholesalers do not care to make heavy purchases at this time. One dealer states that Western holders of oak are asking higher prices than present trade conditions warrant. Holders of desirable stocks in the West refuse to make any concessions. Poplar is in good supply, and rumors of cuts are found to be incorrect. Those who have poplar are quite confident that the market will take all of it at present quotations. Experiments will probably be made this winter and next spring on certain kinds of hardwood that have not been much dealt in heretofore. We are making preparations for a closing of the season. Salesmen have been keeping very close watch on the market requirements all through New England. With regard to yellow pine the week has been a rather active one, a number of heavy orders having been unexpectedly placed. There has also been a movement in sash, doors and blinds. Some retailers have been buying a good deal of stock. The Carolina pine men have done a good season's business, and are satisfied with it. During the coming winter and spring they will push their trade farther into the interior. A good deal of hemlock has been recently contracted for, for forward delivery. Advances from outlying points show a strong market. A good many people who have been holding off thought it wiser to carry heavier stocks; this is notably true at Buffalo, Philadelphia and Albany. The improvement is in retail circles. Wholesalers have enough lumber of all kinds to meet any probable calls.

Reports from Western points show a satisfactory condition of trade, considering the lateness of the season. From Cleveland west a good deal of lumber has been marketed. Throughout the Mississippi region the demand has been rather larger than usual. This is perhaps due to the heavy crops, which are encouraging a great deal of necessary expenditure. All along the transcontinental railroads there is a spirit of activity. This will no doubt exercise a very direct influence upon the lumber trade this winter.

Quotations for 1-inch walnut at New York, \$95; rejects, \$50; culls, \$35; 1-inch poplar, \$32; common, \$24; culls, \$35; 1-inch ash, \$38; strips, \$28; quartered oak, \$52; 1-inch cherry, \$83; white pine uppers, 1-inch, \$44; selects, \$40; fine common, \$36; North Carolina pine, \$21 for rough and \$22.50 for dressed 1-inch flooring; white pine, random orders, \$18.50; heart-faced, \$20; sidings, \$13; flooring, \$21 to \$25.

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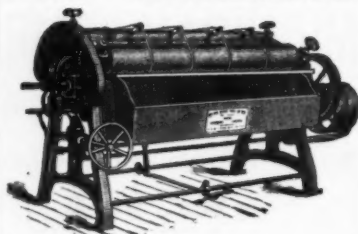
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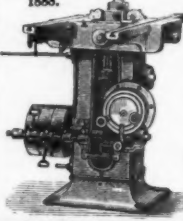
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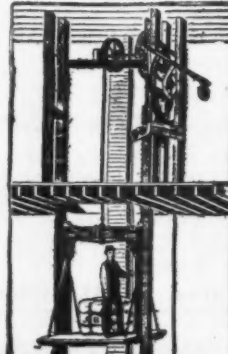
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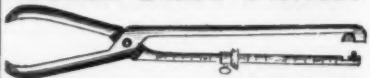
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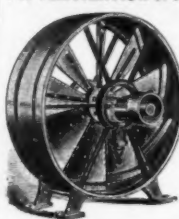


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Gold Mining in North Carolina.

I recently visited the gold gravel beds in Burke county, this State. They can be divided in two distinct classes. Some of them are situated immediately at the slope of the South mountains, an isolated group, extending for 30 miles from south to north, reaching an elevation of 2,000 to 3,000 feet. These possess all the characteristics of a California placer at the foothills of the Sierra Nevada, only on a smaller scale. The gravel is covered with blue clay and consists of pieces of quartz, seldom more than one inch in thickness, and limonite or brown iron ore. The latter contains mostly all the gold in a nuggety shape. At many places, where these materials have not been exposed to the influence of the atmosphere, a number of small veins can be observed setting almost perpendicularly in the ground. Attempts have been made to mine them, but proved failures because of their small size of 3 to 6 inches, although they are very rich, assaying up to \$230 per ton, and some may go higher yet. In mining it has also been found that they are not continuous, but give out after having been followed for 10 to 15 feet in length, where, after a short interval, others come in, perhaps two to three feet to the right or left. The same may be said of them in depth. Some shafts have been sunk 200 feet deep, to where they gave out. As the whole of this region belongs to the Laurentian system, I expected to find sulphurets, which is almost invariably the case in this formation in North Carolina, but could not discover a trace of them. No attempts have yet been made to loosen the ground with dynamite or more powerful streams of water than what have been applied thus far, because mining and hydraulicing have both been carried on in a very primitive way, although the late State geologist estimates the amount of gold obtained by the country people, without any scientific appliances, at \$3,000,000. Most all the localities that came under my observation are well supplied with water, and as the yellow metal is there in abundance, it is only a question of capital and well-directed energy, with exceedingly cheap labor (at 60 cents per day), to make any operation here very remunerative.

The other class of placers is found in the foothills of the South mountains on the western side. The former is plateau, 100 to 150 feet elevated above the Catawba river, in which many small streams have cut deep valleys, and these are all filled with gold-bearing gravel. The latter consists of quartz, hornblende, gneiss and feldspath, containing mica in small pieces, seldom over five pounds in weight. On one tract of about 500 acres a 3-foot vein of feldspath was opened about 10 feet deep with muscovite in it the size of a silver dollar.

Various theories have been advanced for the existence of these gravel beds. As all their component parts are easily decomposed when exposed to the atmosphere, they may have formed the outer covering of this western part of the South mountains, which was, without any extraordinary catastrophe during the Laurentian period, carried down from the sides of the mountains and deposited in the valleys where we now find it. If there would have been any glacial drift in the Southern States the phenomenon could be much easier explained, but as there was no such thing south of the 40th parallel the loosening from its original place and its transportation must be ascribed to air and water. That the original bed of all the watercourses was then at a much lower level is apparent from the fact that the auriferous gravel is covered from one to three feet on the borders of the streams, but from 10 to 15 feet underneath their present location, and this process of burying the gravel still deeper is repeated by every freshet bringing down fine clay and sand.

Below the gravel I expected to find the bed-rock, either gneiss or syenite, and as I dug within a mile on the banks of Silver creek ten pits without striking any solid foundation, the idea suggested itself to my mind that there may be several layers of gravel below, as it is frequently the case in the coal measures, but to find them would take more time and money than was at my command.

If these gravels are not as rich as those of the banks of the California rivers, their working on the other hand is much cheaper, as I paid here for a fair day's work from 60 to 75 cents what would cost out West from \$2 to \$3. Hydraulic pressure I saw applied only on the Hancock mine, directly at the foot of the South mountains; the deposits on Silver creek in Brindletown have to be worked by steam power. This will, however, be a cheap operation, as wood is only worth the cost of cutting and hauling.

The value of the gravels varies greatly. I found them at the rate of 10 cents to the ton up to \$2.75, and the latter on places where I least could expect it, about 50 feet above the level of Silver creek. But considering that the gravels on Dutch Flat in California average only 6 cents per ton, requiring a plant of \$700,000, and still dividing, 14 years ago, when I saw them, \$300,000 per year, I find that there is a chance here for very profitable investment, with judicious working, that seldom will be exceeded elsewhere.—Chas. G. Mann, M. E., in Financial and Mining Record.

Litho-Carbon—A Texas Discovery.

Texas is a State of surprises. Every little while some new and interesting discovery is announced as having been made there. The latest was recently recorded at length by the New York Advertiser. The summarized story of this accidental discovery is that several years since a man who had been a successful prospector in the mineral districts of Idaho, Arizona and Mexico was enjoying a sporting trip a little south of the center of Texas. While fishing along the margin of a stream he came to a ledge which stretched from one bank to the other, forming a natural dam over which the water fell into a deep pool below. As he walked across the crest of this ledge he noticed that it yielded under his weight like an asphaltum pavement heated by a midsummer sun. When he had crossed the stream he saw that this ledge was projected into the bank for some distance, and with his pocket knife he cut out a large lump of it and examined it. It was a mass of sea shells, held together by sand covered with a dark, intensely sticky film of the color of dark-brown sugar, and possessing neither taste nor color. The presence of the shells, which lay thickly in the whole vein, showed that where he stood the ocean had once ebbed and flowed.

This lump was taken to several Texan chemists, who examined it but could make nothing of it. Finally he found one who was able to separate it into its constituent elements. These consisted of white sand, minute sea shells and "a quantity of intensely, brilliantly black stuff of about the density of chilled molasses. This separation, the chemist explained, had been obtained by the application of a bath of common benzene. As by the chemical experiments it had been found that this unknown substance would resist the action of water, heat, acids and alkalis, it was quite clear that it possessed valuable qualities that ought to be utilized. Quantities of the material were quickly obtained and shipped to New York to Dr. Frederick Salathe, whose laboratory is at No. 9 Park Place, where for two years examinations have been prosecuted that have revealed the character and potentialities of this new mineral, which, because of its various properties, has been named litho-carbon. It is said by Dr. Salathe that it will make a better insulator than any other known substance; that it may be used as a paint that will resist the action of heat, salt air, salt or fresh water, gases, or other influences that destroy the paints

now in use; that it will make a perfect varnish, which the ammonia gases of the stable will not tarnish, and that it will remain undisturbed under all atmospheric conditions; that it may be rolled into a tissue that is entirely free from odor and practically indestructible when employed in the making of mackintoshes, canvas belting, water-proof tents, etc.; that it possesses peculiar powers of penetration when applied at high temperatures, enabling it to enter and fill the pores of iron and steel, making these metals absolutely impervious to acids, etc., and making common leather entirely water-proof, and that it may be applied to wood pulp in such a way as to transform that material into what looks and acts like ebony or horn.

The Advertiser further says: "These claims of Dr. Salathe have been verified by the examinations of technical experts in each of the directions mentioned, as it is attested by the great heap of testimony signed by the various well-known men who have tested Dr. Salathe's statements one by one and sifted his claims to the bottom.

"Accepting all this testimony, it will be seen that a revolution is likely to occur in many important fields of commerce. It is possible to saturate a steamship plate in hot litho-carbon and produce a remarkable result. Thus prepared that plate will not be touched by barnacles, can never rust and will not foul. Covered with a layer of paint made of this matter, a ship or a sea-side house will permanently resist the action of the atmosphere or water. A portion of the smokestack of the steamer Dean Richmond, where the heat by the use of a 'blower' rises to 800° Fahrenheit, was painted with litho-carbon months ago, and remains undisturbed and unblistered, while other parts of the vessel have necessarily been painted many times.

"A shingle covered with litho carbon paint has laid for months in a tank of salt water in a great paint warehouse down town without showing a sign of change, while another shingle, covered with the very best previously known paint, has necessarily received coating after coating to preserve its surface. A piece of sheet iron covered with a coat of litho-carbon japan was, in the presence of the writer, subjected to an actual heat of 415° Fahrenheit without crack or blister, and remains so tenacious that the iron may be bent at any angle without in the least disturbing the glossy surface."

It is now announced that this property is to be developed, and a dispatch from San Antonio says "the Litho-Carbon Co., of New York city, has closed negotiations for the purchase of 27,000 acres of land in Uvalde county, on which is situated the greater part of the new mineral deposits discovered a few months ago, and which has created such a stir in the scientific world. The remarkable deposits have been thoroughly analyzed by New York chemists, and as a result of the experiment a series of 29 patents have been issued for the manipulation of the product in its various uses. Its most remarkable field of usefulness is an

electrical insulator. It resembles asphalt in its natural state and can be used as blues, varnishes, gupano and paint. It is a substitute for hard rubber, horn, gutta-percha and rubber tissue. Its solution can also be used to make water proof acid and alkali-proof bags of paper or other material and as a protection for iron and steel. The company having control of the deposit will at once begin the erection of a plant to cost \$180,000, which will be used to separate the deposit from the wets."

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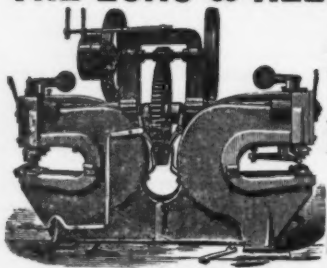
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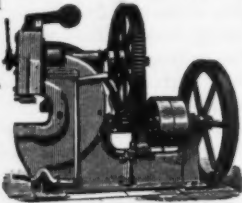
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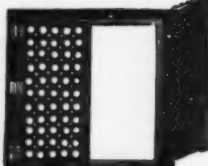
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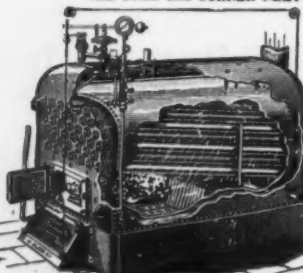
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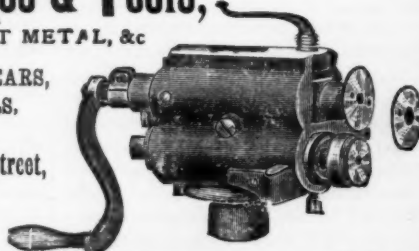
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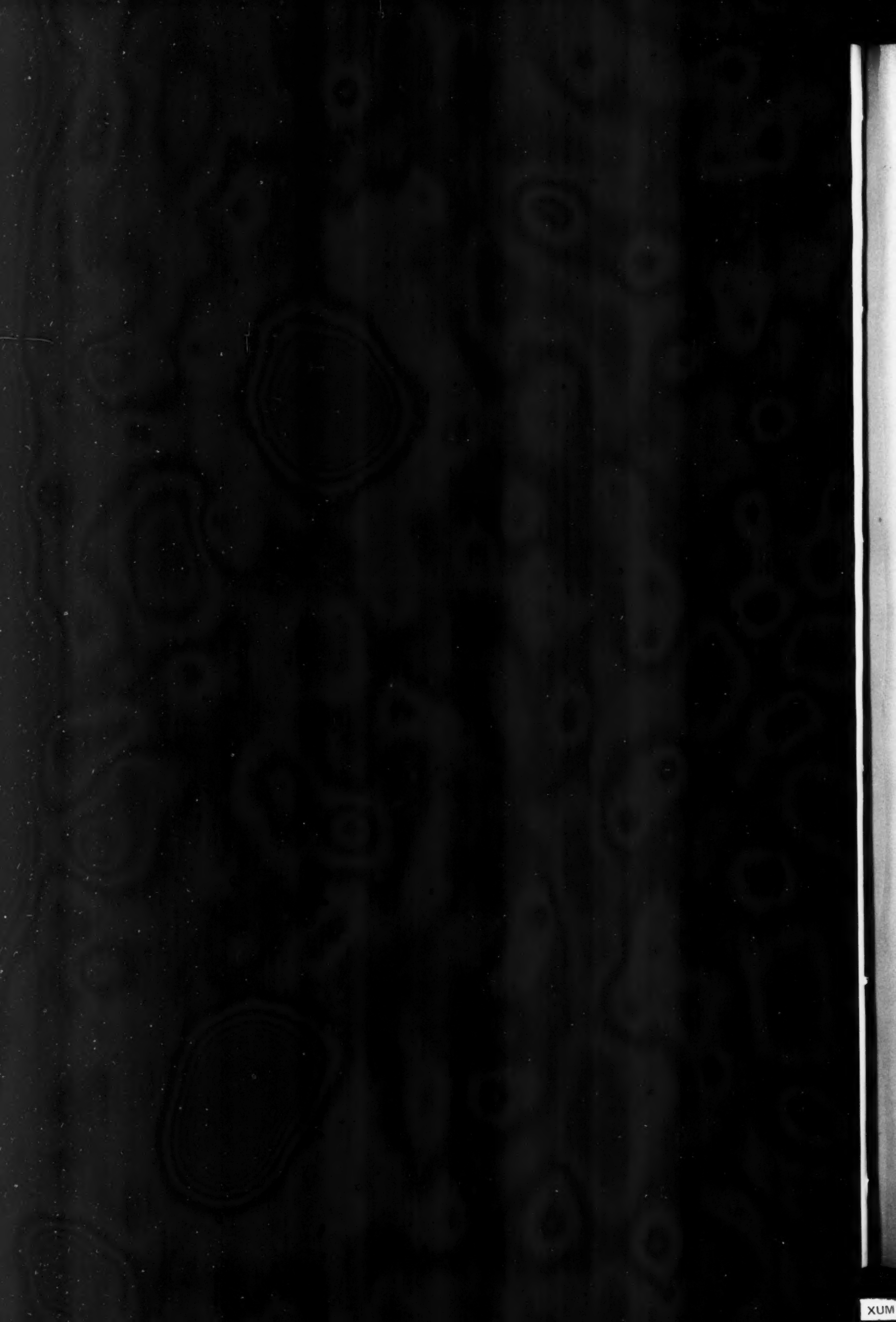
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Alphabetical Index of Advertisers.

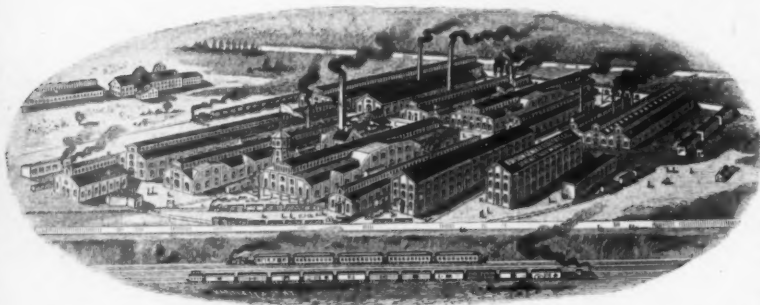
[FOR "CLASSIFIED INDEX," SEE PAGE 2.]

<p>A</p> <p>Abingdon R. E. Exchange & Insurance Agency..... 60</p> <p>Adrian Brick & Tile Mach. Co. 26</p> <p>Albro, The E. D. Co. 26</p> <p>Allenstown Fdry. & Mch. Co. 26</p> <p>Allfree, The J. B. Mfg. Co. 26</p> <p>Allis, The Edw. P. Co. 26</p> <p>American Casualty Insurance & Security Co. 62</p> <p>American Electric Elevator Co. 78</p> <p>American Injector Co. 49</p> <p>American Ore Machinery Co. 45</p> <p>American Pipe Mfg. Co. 45</p> <p>American Screw Co. 80</p> <p>American Supply Co. 50</p> <p>American Well Works. 50</p> <p>Anderson Fdry. & Mach. Wks. 44</p> <p>Andrews, A. H., & Co. 44</p> <p>Arkansas Press. 53</p> <p>Arnold, D. J. C. 48</p> <p>Arnold, O. B. 48</p> <p>Arthur, F. M., & Co. 68</p> <p>Ashton Valve Co. 80</p> <p>Atkins & Co. E. C. 29</p> <p>Augusta, Ga. 21</p> <p>Ault & Wilborg Co. 63</p> <p>Austin, F. C., Mfg. Co. 36</p> <p>B</p> <p>Babcock & Wilcox Co. 35</p> <p>Babcock, H. H. Co. 35</p> <p>Balderson, H. & Son. 68</p> <p>Baldwin Locomotive Wks. 32</p> <p>Ball Engine Co. 63</p> <p>Baltimore Engraving Co. 63</p> <p>Baltimore Stor. & Light. Co. 63</p> <p>Baragwanath, Wm. & Son. 68</p> <p>Barnes, W. F. & John. Co. 67</p> <p>Barnum, E. I. 68</p> <p>Barr Pumping Engine Co. 31</p> <p>Barry, W. B., Saw and Supply Co. 31</p> <p>Bartlett, A. F. & Co. 34</p> <p>Bass Foundry & Machine Wks. 34</p> <p>Bates, Jas. 74</p> <p>Battle Creek Machinery Co. 51</p> <p>Bay Line. 62</p> <p>Beach, H. L. 75</p> <p>Belding Machine Co. 75</p> <p>Bel, The Edwin & Sons Co. 74</p> <p>Bement, Miles & Co. 74</p> <p>Berger Mfg. Co. 73</p> <p>Berlin Iron Bridge Co. 80</p> <p>Berryman, Jas. 48</p> <p>Bertolotto, Chester, & Co. 48</p> <p>Bessmer City, N. C. 60</p> <p>Belleville & Spencer Co. 67</p> <p>Bickford Drill Co., Fred. J. 53</p> <p>Bischoff, C. A., & Co. 53</p> <p>Blackalee Mfg. Co. 50</p> <p>Boggs & Clarke. 73</p> <p>Bolles & Co., J. E. 73</p> <p>Boomer & Roschert Press Co., The. 45</p> <p>Booth, R. V. 39</p> <p>Boss Washing Machine Co. 39</p> <p>Bowden, E. E. 39</p> <p>Bowman, Walker, Ph. D. 45</p> <p>Bradford Mill Co. 45</p> <p>Bradley & Co. 67</p> <p>Bradstreet Co. 67</p> <p>Braxton, A. C. 53</p> <p>Brewer, H. C. 28</p> <p>Bridenburg Mch. Works. 52</p> <p>Bristol's Mfg. Co. 52</p> <p>Brooks, T. H. & Co. 76</p> <p>Brothers de Saussure & Waters. 45</p> <p>Brown, Alex., & Sons. 45</p> <p>Brown & Lewis. 34</p> <p>Buckeye Engine Co. 34</p> <p>Bucyrus Stm. Shov. & Dreg. Co. 36</p> <p>Buffalo Hardwood Lumber Co. 48</p> <p>Buffalo Scale Co. 51</p> <p>Buffalo Steam Pump Co. 51</p> <p>Bullock Bellows Co. 72</p> <p>Bushnell, M. C., Mfg. Co. 64</p> <p>Bushnell, C. G. H. Co. 79</p> <p>Byers Machine Co., Jno. F. 64</p> <p>Byram & Co. 52</p>	<p>C</p> <p>Cabell & Moseley. 38</p> <p>Caldwell, H. W. & Son. 71</p> <p>Calhoun, W. A. 45</p> <p>Cambridge Roofing Co. 73</p> <p>Cameron, A. S., Steam Pump Wks. 51</p> <p>Campbell Cotton Compress Co. 39</p> <p>Canton Steam Pump Co. 49</p> <p>Canton Steel Roofing Co. 49</p> <p>Carbide Motor & Dynamo Co. 73</p> <p>Cardell, Jas. D., & Co. 61</p> <p>Cardwell Machine Co. 79</p> <p>Carlisle Mfg. Co. 46</p> <p>Case Manufacturing Co. 69</p> <p>Casey & Hedges Boiler Co. 33</p> <p>Cather, Wm. A. & Bro. 66</p> <p>Central Iron & Steel Co. 68</p> <p>Chamberlin Mfg. Co. 68</p> <p>Chambers Brothers Co. 28</p> <p>Champion Iron Co. 72</p> <p>Chandler & Taylor Co. 34</p> <p>Charleston Iron Works. 76</p> <p>Charles Town, W. Va. 54</p> <p>Chattanooga Fdry. & Pipe Wks. 72</p> <p>C. H. & D. R. R. 68</p> <p>Cheapeake Belting Co. 70</p> <p>Chester Steel Castings Co. 66</p> <p>Chicago Raw Hide Mfg. Co. 70</p> <p>Cincinnati Corrugating Co. 61</p> <p>Cincinnati Milling Machine Co. 52</p> <p>Claflin Mfg. Co. 70</p> <p>Clapp, Geo. M., Agt. 39</p> <p>Clark, Geo. P. 74</p> <p>Clark, W. J. & Co. 74</p> <p>Cleveland & Hardwick. 68</p> <p>Cleveland Axle Mfg. Co. 80</p> <p>Cleveland & Canton R. R. Co. 62</p> <p>Cleveland Steam Fitting & Supply Co. 52</p> <p>Cleveland Twist Drill Co. 30</p> <p>Cleveland Wheelb'g & Mfg. Co. 36</p> <p>C. L. & W. R. R. 62</p> <p>Codd, Wm. C. 62</p> <p>Coe & Wilkes. 4</p> <p>Coleman, H. Dudley, Machy Co., Limited. 49</p> <p>Collins & Hackett. 45</p> <p>Colonnade Hotel. 63</p> <p>Colton, G. D. & Co. 51</p> <p>Columbus Iron Works Co. 61</p> <p>Columbus Wire Works. 72</p> <p>Conley, Geo. N. 45</p> <p>Connelly, B. A. 60</p> <p>Consolidated Roofing Works. 80</p>	<p>D</p> <p>Dake Eng. Mfg. Co. 34</p> <p>Daniels, Howard. 44</p> <p>Davol Mill. 48</p> <p>Day, J. H. & Co. 49</p> <p>Dean Bros. Steam Pump Works. 50</p> <p>Deane Pump Co. 4</p> <p>De Loach Mill Mfg. Co. 4</p> <p>Deming Co. 59</p> <p>Dempwolf, C. H., & Co. 76</p> <p>Detroit Foundry Equipment Co. 67</p> <p>Dewey, F. P. 45</p> <p>Diamond Prospecting Co. 64</p> <p>Dirigo. 48</p> <p>Dixon, H., & Son. 31</p> <p>Dixon, Jos. Crucible Co. 70</p> <p>Dockham, C. A. & Co. 62</p> <p>Dolph, A. M., Co. 72</p> <p>Dopp, H. Wm., & Son. 3</p> <p>Douglas, R. M. 39</p> <p>Draper, Geo., & Sons. 4</p> <p>Dufur, Baldwin & Co. 45</p> <p>Dunning, W. D. 45</p> <p>Dutton, C. H. & Co. 35</p> <p>E</p> <p>Eagle Boiler Works. 33</p> <p>Easton, Robt. 31</p> <p>Economy Mch. Co. 48</p> <p>Edbrooke, W. J. 39</p> <p>Eddy, Chas. G. 53</p> <p>Edison General Electric Co. 78</p> <p>Edwards Co., M. L. 39</p> <p>Egan Co., The. 39</p> <p>Ehret-Warren Mfg. Co. 39</p> <p>Elam, Rev. P. R. Co. 53</p> <p>Elkton, Va. 30</p> <p>Eller, J. H. & Co. 73</p> <p>Empire Paint & Roofing Co. 4</p> <p>Employers' Liability Assurance Corporation, (Limited). 4</p> <p>Erie Railway. 62</p> <p>Estep, F. A. 48</p> <p>F</p> <p>Farrell & Rempe. 61</p> <p>Farquhar, A. B. Co. 32</p> <p>Faye & Co. 45</p> <p>Fay, W. H., Manilla Co. 45</p> <p>Felkel, F. 45</p> <p>Fisher, S. J. 68</p> <p>Fitts, J. H. 53</p> <p>Fitzsimons & Co. 79</p> <p>Fletcher & Thomas. 28</p> <p>Foley, John T. 45</p> <p>Foot Mfg. Co. 74</p> <p>Forsyth, S. C., Machine Co. 33</p> <p>Frank & Co. 33</p> <p>Frey-Sheckler Co. 45</p> <p>French & Warren. 45</p> <p>Freese, E. M. & Co. 28</p> <p>Frick Co. 32</p> <p>Frisbie Lumber Mill Co. 68</p> <p>Front Royal Mfg. Co. 68</p> <p>Front Royal-Riverton, Va. 58</p> <p>Fuller, W. M., Jr. 75</p> <p>"Furnace". 44</p> <p>Fulton Boiler Works. 68</p>	<p>G</p> <p>Gambrell, C. A., Mfg. Co. 63</p> <p>Gambrell, M. & Co. 48</p> <p>Gandy Belting Co. 70</p> <p>Garlock Packing Co. 80</p> <p>Gates Iron Works. 64</p> <p>Gay, Louis W. 71</p> <p>Gerlach, Peter. 74</p> <p>Giant Key Seater Co. 74</p> <p>Gibbes, W. H., Jr., & Co. 45</p> <p>Gleghorn Co., The. 25</p> <p>Glen Cove Machine Co., (Lim.). 25</p> <p>Globe Co. 60</p> <p>Globe Iron Roofing & Cor. Co. 73</p> <p>Globe Machine Co. 32</p> <p>Globe Machine Works. 79</p> <p>Goodell & Waters. 29</p> <p>Graham, J. S., & Co. 31</p> <p>Graham Twist Drill Co. 30</p> <p>Gray, Arthur F. 45</p> <p>Greaves & Klusman. 71</p> <p>Greer Machinery Co. 74</p> <p>Griffith, W. D. 38</p> <p>H</p> <p>Hackney Hammer Co. 67</p> <p>Haines, Jones & Cadbury Co. 49</p> <p>Hanson, Van Winkle & Co. 79</p> <p>Harrington, E., Son & Co. 68</p> <p>Harrington & King Perforat. Co. 3</p> <p>Harrison Boiler & Mfg. Co. 76</p> <p>Harris & Co., N. W. 35</p> <p>Harris, T. W. 36</p> <p>Harrison Safety Boiler Works. 36</p> <p>Hartford Steam Boiler Inspection & Insurance Co. 63</p> <p>Hart Mfg. Co. 67</p> <p>Hazeltine Tripod Boiler Co. 33</p> <p>Healey, Geo. W. 71</p> <p>Hercules Iron Works. 45</p> <p>Helsier Safety Boiler Co. 35</p> <p>Helsier Electric Light Co. 79</p> <p>Hofstaetter, J. J. 32</p> <p>Holmes, E. & B. 71</p> <p>Holt Mfg. Co. 63</p> <p>Holton Iron Roofing Co. 73</p> <p>Hopkins & Townsend Co. 4</p> <p>Hopkins Mfg. Co. 71</p> <p>Hoschkin, A. W. 61</p> <p>Howard Hydraulic Cement Co. 61</p> <p>Humphrey, P. C. 11</p>	<p>I</p> <p>Hunt & Connell. 74</p> <p>Hunting, E. B. & Co. 74</p> <p>Huyett & Smith Mfg. Co. 71</p> <p>J</p> <p>Illinois Central Railroad. 62</p> <p>Ingersoll-Sergeant Rock Drill Co. 3</p> <p>K</p> <p>Jeffrey Mfg. Co. 64</p> <p>Jenkins Bros. 53</p> <p>Jenks, James. 48</p> <p>Jessup Bros. 74</p> <p>Johns, H. W. Mfg. Co. 74</p> <p>Johnson & Field. 70</p> <p>Jones of Birmingham. 52</p> <p>Jones, B. M. & Co. 70</p> <p>Joyce, Criddle & Co. 74</p> <p>Joyce, N. E. 39</p> <p>L</p> <p>Kanber Roofing Co. 73</p> <p>Keeler, E. Co. 68</p> <p>Kells & Sons. 29</p> <p>Keystone Elec. Co. 78</p> <p>Kilbourne & Jacobs Mfg. Co. 80</p> <p>Knoxville Car Wheel Co. 66</p> <p>M</p> <p>Laidlaw & Dunn Co. 50</p> <p>Landreth, Olin H. 41</p> <p>Lathe & Morse Tool Co. 57</p> <p>Lawrenceburg, Tenn. 15</p> <p>Lawrence Machine Co. 50</p> <p>Lean, D. R. 45</p> <p>Ledoux & Co. 45</p> <p>Leffel, Jas., & Co. 32</p> <p>Leaf Water Wheel & Eng. Co. 65</p> <p>Leather Iron Works. 65</p> <p>Link Belt Engineering Co. 64</p> <p>Livville, N. C. 59</p> <p>Lloyd Booth Co. 76</p> <p>Lockwood, Greene & Co. 45</p> <p>Lodge & Davis Mach. Tool Co. 48</p> <p>Lombard, Geo. R. & Co. 68</p> <p>Long & Allistatter Co. 76</p> <p>Long Steel & Iron R. Co. 73</p> <p>Lowell Machine Shop. 68</p> <p>Ludlow Saylor Wire Co. 68</p> <p>Ludlow Valve Mfg. Co. 35</p> <p>N</p> <p>MacLeod, John. 45</p> <p>Main Belting Co. 70</p> <p>Makepeace, C. R. & Co. 45</p> <p>Males, A. S., & Co. 45</p> <p>Martner & Hoskins. 45</p> <p>Marion Steam Shovel Co. 28</p> <p>Martin, H., Brick Mach. Mfg. Co. 28</p> <p>Mastlin, Jno. & Son. 50</p> <p>Mason Regulator Co. 35</p> <p>Mast, Foss & Co. 70</p> <p>McCabe, J. J. 48</p> <p>McGowan, Jno. H. Co. 50</p> <p>McLain, Nicholas & Daft. 64</p> <p>McLanahan & Stone. 64</p> <p>McNeil, J. C., & Co. 35</p> <p>McShane, H., & Co. 68</p> <p>McDon-Non Acid Phosphate Co. 3</p> <p>Mengel, John G. & Co. 62</p> <p>Merchant & Co. 68</p> <p>Merritt, L. E., Machinery Co. 71</p> <p>Meyers, Fred. J., Mfg. Co. 72</p> <p>Michigan Emery Wheel Co. 73</p> <p>Middendorf, Oliver & Co. 39</p> <p>Middleborough, Ky. 17</p> <p>Miller, Robert. 45</p> <p>Miner & Peck Mfg. Co. 67</p> <p>Minneapolis, Va. 56</p> <p>Minneapolis, Wm. 48</p> <p>Molitz, Jacob J. 31</p> <p>Molitz, Jerome. 31</p> <p>"Money Wants". 39</p> <p>Moore, Enos L. 36</p> <p>Moore & White Co., The. 31</p> <p>Morris Machine Works. 51</p> <p>Morse, Williams & Co. 3</p> <p>Mosby, S. B. & Co. 45</p> <p>Mudge Process Fruit Packing Co. 60</p> <p>Murphy, J., & Co. 60</p> <p>Murray, Jas., & Son. 65</p>	<p>O</p> <p>Nantz, A. & Co. 73</p> <p>Nashville Rapid Tanning & Belt Manufacturing Co. 70</p> <p>National Cordage Co. 39</p> <p>National Tube Works Co. 31</p> <p>N. N. & M. V. Ry. 62</p> <p>Neracher Sprinkler Co. 3</p> <p>New Castle, Va. 18</p> <p>Newport News, Va. 19</p> <p>N. Y. Equipment Co. 75</p> <p>New York Machinery Depot. 32</p> <p>New York Safety Steam Power Co. 32</p> <p>Nicholson & Tool Co. 76</p> <p>Nicholson File Co. 73</p> <p>Niles Iron & Steel Roofing Co. 73</p> <p>Nixon, J. C. 48</p> <p>Nordyke & Marmou Co. 4</p> <p>Norfolk & Western Railroad. 60</p> <p>Norfolk, Va. 14</p> <p>North American Metaline Co. 33</p> <p>North Wilkesboro, N. C. 16</p> <p>Northampton Emery Wheel Co. 72</p> <p>Norton Emery Wheel Co. 72</p> <p>Nye & Treddick. 73</p> <p>P</p> <p>Ohio Pulley & Machine Co. 4</p> <p>Oil Well Supply Co. 4</p> <p>Otto Gas Engine Works. 4</p> <p>Q</p> <p>Page Belting Co. 67</p> <p>Palmer, Cunningham & Co. (Lim.). 67</p> <p>Pancost & Maule. 67</p> <p>Fate, N. T. & Co. 74</p> <p>Penberthy Injector Co. 31</p> <p>Pensfeld, J. W., & Son. 28</p> <p>Penna. Machine Co., Limited. 48</p> <p>Pennsylvania Steel Co. 76</p> <p>Perfection Sash Balance Co. 76</p> <p>Philadelphia Engineering Wks. 32</p> <p>Phosphor-Bronze Smt. Co. (Lim.). 66</p> <p>Photo. Electro Engraving Co. 66</p> <p>Piedmont Air Lift. 76</p> <p>Pierce, Butler & Pierce Mfg. Co. 76</p> <p>Pierce, Josiah. 48</p> <p>Pittsburgh Port. Forge Co., Ltd. 74</p> <p>Place, George. 48</p> <p>Polindexter, Parks L. 39</p>	<p>R</p> <p>Poor, H. V. & H. W. 63</p> <p>Porter, C. O. & A. D. 66</p> <p>Porter, H. A., & Co. 66</p> <p>Portis, C. A., & Co. 28</p> <p>Powell Co., Wm. 35</p> <p>Prentiss Tool & Supply Co. 48</p> <p>Providence Steam & Gas Pipe Co. 78</p> <p>Pyrometer Steam Pump Co. 50</p> <p>S</p> <p>Queen & Crescent Route. 62</p> <p>Queen City Supply Co. 79</p> <p>T</p> <p>Racine Hardware Co. 33</p> <p>Rand Drill Co. 64</p> <p>Rarig Co., Alex. R. 32</p> <p>Ravenna Boiler Works. 35</p> <p>Raymond, C. W., & Co. 28</p> <p>Record Printing House. 60</p> <p>Rice, W. P. 60</p> <p>Richards, M. V. 60</p> <p>Richmond Locomotive & Machine Works. 66</p> <p>Robertson, John C. 60</p> <p>Robinson & Orr. 48</p> <p>Rochester Machine Co. 76</p> <p>Rochester Machine Tool works. 31</p> <p>Rogers, C. B., & Co. 43</p> <p>Rogers, D. D. 43</p> <p>Ross, Josiah. 36</p> <p>Ross-Meehan Brake Shoe Fy. Co. 36</p> <p>Ross & Hermance. 30</p> <p>Rue Manufacturing Co. 23</p> <p>Rutherford, N. C. 23</p> <p>Ryan, Jno. Co. 63</p> <p>Ryan-McDonald Mfg. Co. 63</p> <p>U</p> <p>Saabye, Oscar. 45</p> <p>Salem Wire Nail Co. 72</p> <p>Sanderson, John. 45</p> <p>Santley Lumber Co. 68</p> <p>Satterthwaite, M. P. 75</p> <p>Saunders, D., Sons. 26</p> <p>Savannah, Va. 26</p> <p>Schuyler Elec. Co. 78</p> <p>Sebastian-Mary Co. 39</p> <p>Sebastian-Mary Co. 39</p> <p>Seyfert's Sons, L. F. 48</p> <p>Sharon Boiler Works. 51</p> <p>Shepard, H. L. 68</p> <p>Shimer, Samuel, J. 35</p> <p>Shipman Engine Co. 35</p> <p>Shryock, Thos. J., & Co. 74</p> <p>Silvers Belting Co. 70</p> <p>Silver Manufacturing Co. 68</p> <p>Simmerly Derrick Co. 75</p> <p>Simmons, Jno. Co. 49</p> <p>Simplin & Hillier. 49</p> <p>Sims Manufacturing Co. 73</p> <p>Sinclair & Leavenworth. 34</p> <p>Skinner Engine Co. 34</p> <p>Smith & Co. 3</p> <p>Smith, H. E., Machine Co. 3</p> <p>Smith, Jas., & Co. 3</p> <p>Smith Premier Typewriter Co. 52</p> <p>Smith, S. Morgan. 52</p> <p>Smith & Valle Co. 50</p> <p>Southern Equipment Co. 45</p> <p>Southern Information Bureau. 39</p> <p>Southern Malleable Iron Co. 52</p> <p>Southern Real Estate Directory. 52</p> <p>Spiral Weld Tube Co. 52</p> <p>Springfield Emery Wheel Mfg. Co. 53</p> <p>Stacy, J. B. 53</p> <p>Standard Steel Works. 50</p> <p>Star Drill Machine Co. 50</p> <p>Starrett, L. S. 52</p> <p>Steam Stone Cutter Co. 65</p> <p>Stearns Manufacturing Co. 33</p> <p>Stedman's Fdry. & Mch. Wks. 48</p> <p>Steel Rail Supply Co. 48</p> <p>Stein & Schwarz. 51</p> <p>Stidwell & Bierce Mfg. Co. 51</p> <p>Stow Flexible Shaft Co. (Lim.). 68</p> <p>Stow Manufacturing Co. 68</p> <p>Stuebner, G. L., & Co. 68</p> <p>Starlevant, B. F. Co. 65</p> <p>Starlevant Mill Co. 65</p> <p>Swains, A. W. 45</p> <p>Sword, P. L., & Son. 73</p> <p>Sykes Iron Roofing Co. 57</p> <p>Syndicate. 57</p>
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* Not in this issue.

[CONTINUED FROM PAGE 2.]

<p>Steamers.</p> <p>Bay Line Steamers. 72</p> <p>Balto. Stor. & Light. Co. 72</p> <p>Steel (Mushet's). 72</p> <p>B. M. Jones & Co. 72</p> <p>Steel Rails.</p> <p>(See also R. R. Equip't and Supplies.)</p> <p>Robinson & Orr. 78</p> <p>Penna. Steel Co. 78</p> <p>Textile Machinery and Supplies.</p> <p>James Smith Woolen Machinery Co. 35</p> <p>O. B. Arnold. 74</p> <p>Davol Mill. 70</p> <p>Bridenburg Mach. Wks. 70</p> <p>Lowell Machine Shop. 68</p> <p>M. Gambrell & Co. 75</p> <p>Nye & Treddick. 49</p> <p>American Supply Co. 73</p> <p>Crompton Loom Wks. 73</p> <p>Globe Machine Works. 73</p> <p>Geo. Draper & Sons. 73</p> <p>Whitinsville Spinning Ring Co. 73</p> <p>Geo. F. Clark. 73</p> <p>Tires.</p> <p>Standard Steel Works. 50</p> <p>Tools (Machine & Hand.)</p> <p>Bradford Mill Co. 68</p> <p>Bement, Miles & Co. 75</p> <p>S. S. Starratt. 75</p> <p>Sebastian-Mary Co. 49</p> <p>Geo. W. Heartley. 52</p> <p>J. J. McCabe. 52</p> <p>Penna. Machine Co. 52</p> <p>M. L. Edwards Co. 52</p> <p>Giant Key Seater Co. 52</p> <p>Billings & Spencer Co. 52</p> <p>Cincinnati Mfg. Mach. Co. 52</p> <p>Carl Mfg. Co. 52</p> <p>Hart Mfg. Co. 52</p> <p>Belden Mch. Co. 52</p> <p>Stow Flexible Shaft Co. 52</p> <p>D. E. Whitton Mfg. Co. 52</p> <p>Cleveland Tw. Drill Co. 52</p> <p>Lathe & Morse Tool Co. 52</p> <p>H. Harrington Son, & Co. 52</p> <p>Lodge & Davis Machine Co. 52</p> <p>Prentiss Tl. & Sup. Co. 52</p> <p>W. F. & Jno. Barnes Co. 52</p> <p>H. L. Shepard. 52</p> <p>Pancost & Maule. 52</p>	<p>Union Foundry & Machine Works.</p> <p>Cleveland Axle Manufacturing Co. 72</p> <p>Watchman's Clocks.</p> <p>A. Nantz & Co. 72</p> <p>Water Closet.</p> <p>Haines, Jones & Cadbury Co. 72</p> <p>Water Filters.</p> <p>J. A. Bowden & Co. 72</p> <p>Water Motors.</p> <p>Warfield Mfg. Co. 72</p> <p>Water Wheels.</p> <p>Allenstown Foundry & Machine Co. 72</p> <p>E. T. Copeland & Co. 72</p> <p>De Loach Mill Mfg. Co. 72</p> <p>Jas. Leffel & Co. 72</p> <p>Stillwell & Bierce Mfg. Co. 72</p> <p>S. Morgan Smith. 72</p> <p>Well Tools.</p> <p>Williams Bros. 72</p> <p>Star Drilling Mach. Co. 72</p> <p>American Well Works. 72</p> <p>Oil Well Supply Co. 72</p> <p>Deming Co. 72</p> <p>Wheelbarrows.</p> <p>Pitts. Port. Forge Co. 72</p> <p>Cleveland Wheelbarrow & Mfg. Co. 72</p> <p>Kilbourne & Jacobs Mfg. Co. 72</p> <p>G. L. Stuebner & Co. 72</p> <p>Wind Engines.</p> <p>U. S. Wind Engine & Pump Co. 72</p> <p>Mast, Foss & Co.</p> <p>American Well Wks. 72</p> <p>Van Winkle Gin & Mach. Co. 72</p> <p>Wire, Wire Rope, Barbed Wire, &c.</p> <p>Cooper, Hewitt & Co. 72</p> <p>Williamsap' W. Rope Co. 72</p> <p>Ludlow Saylor Wire Co. 72</p> <p>Wire Goods.</p> <p>Columbus Wire Works, J. E. Bolles & Co. 72</p> <p>H. Balderston & Son. 72</p> <p>E. T. Barnum. 72</p> <p>Fred. J. Meyers Mfg. Co. 72</p> <p>Dufur & Co. 72</p> <p>Ludlow Saylor Wire Co. 72</p> <p>Wire Nails.</p> <p>Salem Wire Nail Co. 72</p> <p>Wood Working Machinery.</p> <p>Greer Machinery Co. 72</p> <p>Battle Creek Machy Co. 72</p> <p>Jacob J. Molitz. 72</p> <p>U. S. Machine Co. 72</p> <p>H. B. Smith Mach. Co. 72</p> <p>Smith-Courtney Co. 72</p> <p>Penna. Machine Co. 72</p> <p>Frank & Co. 72</p> <p>Victor Mfg. Co. 72</p> <p>Globe Machine Co. 72</p> <p>Greaves & Klusman. 72</p> <p>Robt. Easton. 72</p> <p>Cordeman Mach. Co. 72</p> <p>Jas. Jenks. 72</p> <p>E. B. Holmes. 72</p> <p>Peter Gerlach & Co. 72</p> <p>I. E. Merritt Mch. Co. 72</p> <p>The Egan Co. 72</p> <p>C. B. Rogers & Co. 72</p> <p>Cordeman, Meyer & Co. 72</p> <p>Rowley & Hermance. 72</p> <p>J. S. Graham & Co. 72</p> <p>Glen Co. Mach. Co. 72</p> <p>Trevor Mfg. Co. 72</p> <p>Coe & Wilkes. 72</p> <p>C. S. Forsyth Mch. Co. 72</p> <p>Williamport Mch. Co. 72</p> <p>Sam'l. J. Shimer. 72</p> <p>Goodell & Waters. 72</p> <p>S. A. Woods Mch. Co. 72</p> <p>W. F. & Jno. Barnes Co. 72</p> <p>H. L. Shepard. 72</p> <p>Josiah Ross. 72</p> <p>Wood Water Pipe.</p> <p>A. Wyckoff & Son. 72</p> <p>Wrenches, &c. 72</p> <p>Billings & Spencer Co. 72</p>
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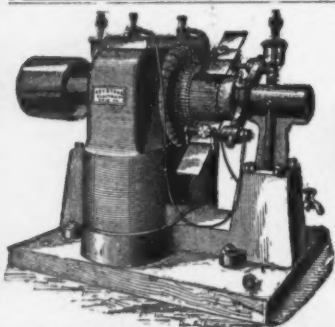
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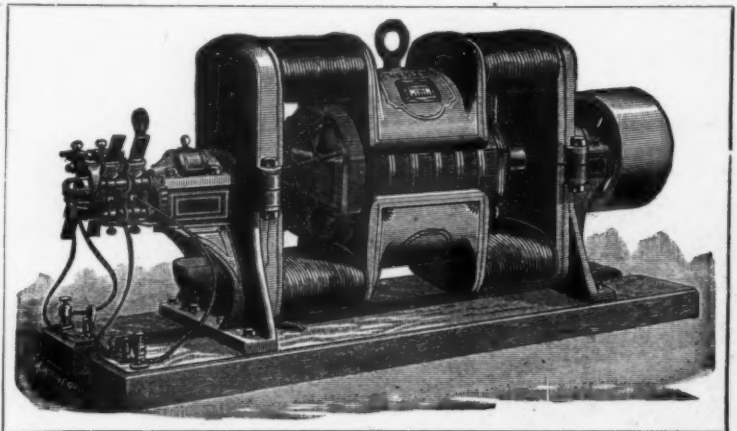
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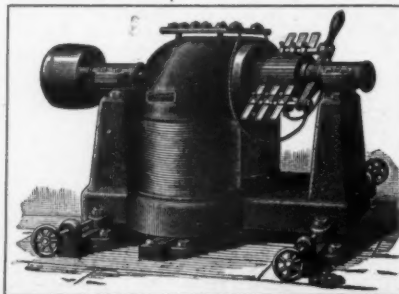
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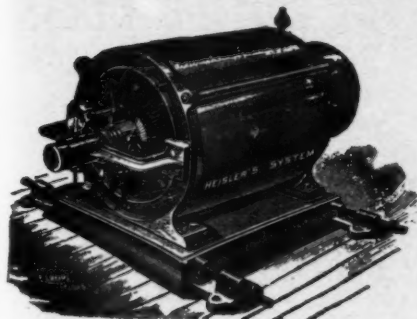
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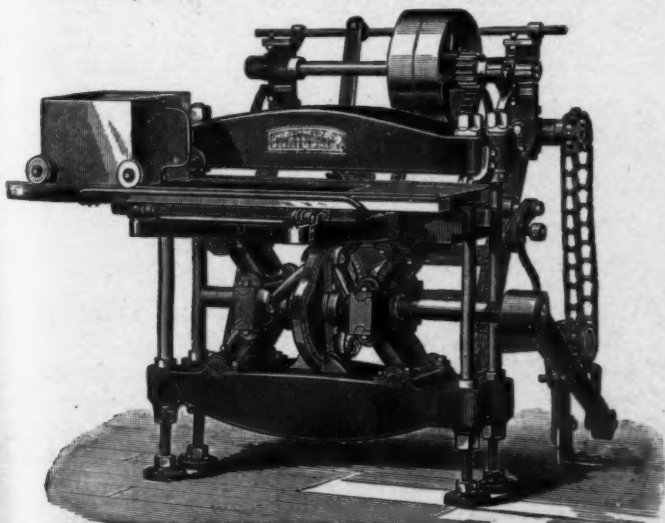
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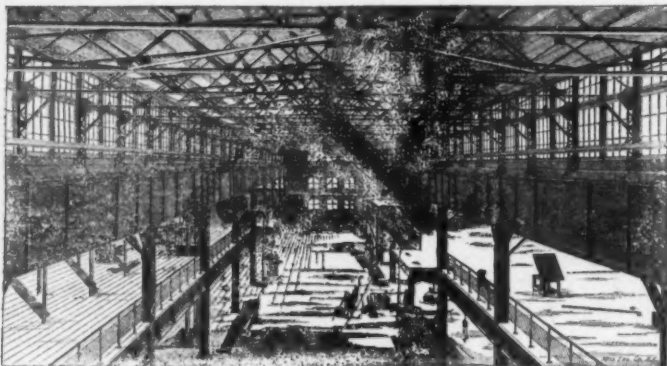
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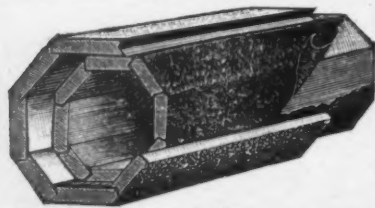
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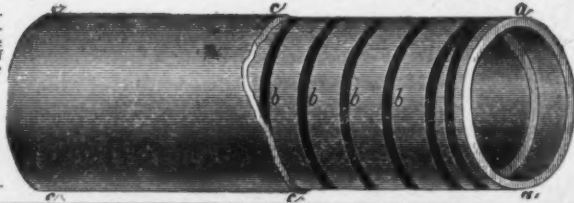
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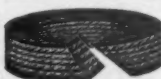
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